Ardenne High School

GRADE 9

Curriculum Guide

Published by Ardenne High School

INTRODUCTION

The Ardenne High School Grade Nine Curriculum Guide is a joint effort of the Senior Management Team lead by the Principal and the academic staff over the past year. This curriculum guide is designed to give the parents and guardians of Grade 9 an insight into the content to be covered and assessment as well as possible strategies to achieve learning at this level over specific periods. The guides provide the outlines from which the teachers will plan lessons, class activities, assessment and feedback. The provision of this guide is also intended to allow parents/guardians where possible to track the progress of our students.

Please note that the Grade 9 Curriculum is guided by the Ministry of Education, Youth and Information's new National Standards Curriculum being piloted since 2015. The content of this curriculum guide is subject to change as the school assesses the needs and capabilities of the students and any changes made at the Caribbean Council's level.

SEMESTER ONE: SEPTEMBER - FEBRUARY	SEMESTER TWO: FEBRUARY - JUNE
Term 1 September - November	Term 2 December - February
	Term 3 March - June

ASSESSMENT

TYPES	WEIGHTING
Homework	20
Classwork	30
Unit test	50

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BUSINESS BASICS

Aims of the Grade 9 Business Basics Curriculum

The unit introduces students to the resources and technology invented for use in the business environment. They will examine the definitions of the terms resources and technology in a business context and identify the types utilized in business. Additionally, they will explore the advancements that have been made and evaluate new features and functions as well as the skills and knowledge that are required to utilize the modern equipment. Students will also develop an understanding of the relationship between resources and technology and their contribution to business activities. They will use their creative and innovative abilities to suggest developments to resources that will satisfy needs or solve some basic problems experienced by businesses.

Range of Content

What are the key concepts, skills and knowledge students will learn in this subject?

- Definition of terms e.g. resources, technology, human resources, non-human resources,
- Relationship between resources and technology
- Role of resources and technology in business operations
- Types of resources and technology utilized in the business environment
- Classification of resources
- Classification of technology
- Difference between human and non-human resources
- Advancements/improvements made to business resources
- Incorporation of accounting concepts into day to day business operations

	DURATION 40 mins/80 mins – 1 class	TOPIC	SPECIFIC OBJECTIVES	SUGGESTED TEACHING/LEARNING STRATEGIES	ASSESSMENT
UNIT:			**Students should be able to:**		
Unit 1.1	2 weeks	Types of Business Ownership 1. Reasons for starting a business 2. Types of Business Ownerships a. Sole Trader b. Partnership c. Companies **(Limited and Unlimited)** 3. Sources of capital for each type of business 4. Role of Financial Institutions as a source of capital 5. Advantages and Disadvantages of each type of business. 6. Legal requirements for establishing each type of business. Basic skills required to start a business	1. Define the terms business, capital, liability, limited liability, unlimited liability, collateral, loan 2. Discuss the reasons for starting a business 3. Identify three types of business ownerships 4. Describe the features of each type of business ownership 5. Discuss the various sources of raising capital for each types of business ownership. 6. Discuss the role of financial institutions as a source of capital 7. Discuss the advantages and disadvantages of each type of business ownership 8. Outline the legal requirement for establishing each type of business ownership 9. Outline the procedures for the formation of each type of business	• Critique business names to determine the type of ownership e.g. Grace Kennedy Ltd., J & J Garage, Juici Patties • Listen to a video or guest presentation or conduct interviews with individuals who operate any type of business outlining the reasons for operating business, type of business operated, legal requirements for establishing the type of business, advantages and disadvantages of operating the types of business.	• Types of business ownerships correctly defined. • Reasons for operating business, features of each type of business, sources of raising capital for each type of business, advantages and disadvantages. • Sources of raising capital.

			10. Suggest the factors which influence the choice of business 11. Identify the basic skills and qualification required to operate a business.		

	DURATION 40 mins/80 mins – 1 class	TOPIC	SPECIFIC OBJECTIVES	SUGGESTED TEACHING/LEARNING STRATEGIES	ASSESSMENT
UNIT			Students should be able to:		
Unit 1.2	2 weeks	Resources used in Production **1.** Definition of key terms **2.** Factors of Production **3.** Utilization of Factors of Production **4.** Category of workers **5.** Renewable vs. Non-renewable resources	6. Define key terms production, factors of production, natural resources (land), human resources (labour), capital resources, enterprise, goods and services. 7. Identify the factors of production 8. Explain the importance of each factor of production. 9. Discuss how the factors of production are utilized in the creation of goods and services. 10. Explain each category of workers as unskilled, semi-skilled, skilled or professional 11. Identify natural resources and their related industries. 12. Differentiate between renewable and non-renewable resources used in production. 13. Classify items as renewable or non-renewable resources.	• Select a product from a basket, in groups students record the resources (human, non-human, renewable and non-renewable resources) put into the production of the item to the point of purchase by the consumer. • Conduct an interview with various categories of workers in the school community e.g. Administrative, ancillary and academic to determine their job functions or tasks and the level of training required to perform duties. • Use an appropriate device to create a video recording or conduct a tour or collect pictures of natural resources found on the school ground or immediate community • Use textbook or online sources to conduct research on renewable and nonrenewable sources of energy. In the research students will determine: **1. Type of energy e.g. fossil fuel (coal,**	• Correct definition of terms ‘good’ or ‘service’. • Listing of companies that produce goods and services. • Classification of factor of production • Factors of production correctly defined • Classification of worker in the appropriate group • Resources correctly classified as renewable and non-renewable. • Classification table showing renewable and non-renewable resources. • Complete project on renewable and non-renewable resource.

			14. Create a business model for a product and apply the factors of production to the creation of a product.	**oil), natural gas, solar** **2. Sources from which they are generated** **3. Estimated length of time for depletion of non-renewable resources** **4. Advantages and disadvantages of the various type of fuel** 5. In groups, select the factors of production that would be required for a specific economic activity for example printing of T-Shirts for sale, grocery store, an internet café. The following should be explained; natural resources to be used should be classified as renewable or non-renewable; jobs functions to be performed should be classified according to skill, attitude and values, skills and attitude, profits to be made (mark-up and margins), pricing.	

	DURATION 40 mins/80 mins – 1 class	TOPIC	SPECIFIC OBJECTIVES	SUGGESTED TEACHING/LEARNING STRATEGIES	ASSESSMENT
Unit			**Students should be able to:**		
Unit 1.3	**1 week**	Communication in Business 1. Elements of good communication 2. Barriers to good communication 3. Methods of communication Careers associated with a business	1. Define the term communication 2. Explain the element of the communication process 3. Explain the elements of good communication 4. Identify the methods of communication 5. Discuss the barriers to good communication 6. Select the appropriate methods of communication and express reasons for selection. 7. Discuss safety consideration when using communication media in a business 8. Identify careers associated with using communication media in a business.	• Participate in role play illustrating the communication process and identify the features which illustrate the process or cycle. • View video presentation, or play game (Chinese Telephone) illustrating barriers to good communication. • Identify the barriers observed and state how it impacts effective communication and make recommendations for improvement. • Conduct a research online or use textbooks to identify examples of the methods used in business. • Conduct a research and develop a set of protocols for a business to communicate use of any two of the following email, meetings, letters, memorandum, telephone messages, flyers, press releases Prepare a written presentation outlining the protocol/procedure for each and the safety considerations to adhere to.	• Illustration of the communication cycle • Barriers to effective communication identified • Protocol for different types of communication **UNIT TEST 1**

	DURATION 40 mins/80 mins – 1 class	TOPIC	SPECIFIC OBJECTIVES	SUGGESTED TEACHING/LEARNING STRATEGIES	ASSESSMENT
UNIT:			Students should be able to:		
Unit 1.4	**2 Weeks**	**Banking Services** 1. Forms of Money 2. Definitions of Key terms associated with banking 3. Services provided by Banks 4. Advantages of a cheque 5. Parts of a cheque 6. Safety guidelines for drawing cheques 7. Benefits of ATMs	8. Identify forms of money used to acquire goods and services. 9. Define the terms: commercial banks, bank deposits, cheques cash, notes, withdrawal, deposits, lodgement, currency memorandum, automatic banking, Personal Identification Number (PIN), debit card and credit cards, 10. Identify services provided by banks to businesses 11. Discuss the advantages of using cheques in business transactions. 12. Explain the parts of a cheque. 13. Discuss the safety guidelines for drawing cheques. 14. Fill in appropriate information in a blank cheque from given scenario. 15. Discuss the benefits of an Automated Teller	• Collect different forms of money and sort them into three categories paper notes, coins and bank deposits. View samples of documents that business owners use to transact business at the commercial banks for example cheque, withdrawal and deposit slips. Analyse the documents to determine their purposes. • Watch video presentation or observe flow chart or listen to presentation from a class member on the procedures for using an automated teller/banking machine. • Discuss the safety guidelines for drawing cheques and other documents • Cut out advertisements for jobs in the banking field	• Organise money into three categories and correct denominations. • Cheque correctly labelled. • Correct completion of blank cheque using information provided. • Safety consideration when using cheque. • Explain correct procedures for using the ATM.

			Machine/online banking to a business. 16. Explain the procedures for using an Automated Teller Machine (ATM)/online banking. 17. Outline the safety consideration for using an ATM/online banking. 18. Identify the careers, skills and training, associated with banking services ICT.	from the newspaper, magazine or retrieve from online sources. Paste clips in manuscript and use the information to create a table showing the careers in the banking industry, qualification and job functions.	

	DURATION 40 mins/80 mins – 1 class	TOPIC	SPECIFIC OBJECTIVES	SUGGESTED TEACHING/LEARNING STRATEGIES	ASSESSMENT
UNIT					
Unit 1.5	6-8 Weeks	Introduction to basic Accounting terms and Records 1. Main users of accounting 2. Accounting vs. Book-keeping 3. Simple accounting terms: assets, liability, capital 4. Classify resources into assets, liabilities and capital 5. Accounting Equation 6. Simple Balance Sheet 7. Ledgers 8. Trial Balance 9. Trading, Profit and Loss Account	1. Explain the purpose of accounting 2. Identify the main users of accounting and how they use accounting information 3. Explain simple accounting terms relevant to business transactions. 4. Differentiate between accounting and book-keeping 5. Classify resources as assets, liability and capital as relevant to business 6. Discuss the relevance of the accounting equation to a business 7. Apply mathematical operation to re-arrange the accounting equation to find the missing figure. 8. Calculate the asset, liability and capital of a business using the balance sheet equation. 9. Construct a simple balance sheet in basic format **UNIT TEST 2** 10. Post transactions to the Ledgers. 11. Interpret balances from the ledgers.	• View a video or PowerPoint presentation or listen to guest presentation on the purposes and users of accounting information. • In groups conduct a research online or use textbooks to identify the basic terms associated with accounting e.g. bookkeeping, assets, capital, liabilities, credit, debit etc. • Interview teachers in the school or surrounding communities to determine what is owned and what is owed • Participate in teacher-led discuss to understand the relevance of accounting equation of Asset = Liability (A = L) to a business. • Watch video presentation illustrating the concept of the accounting equation to further reinforce concept • Record examples of assets, liabilities and capital mentioned in the video presentation.	• Correct definition of key terms relevant to accounting transactions. • Correctly differentiate between accounting and book-keeping. • Correct calculation of the assets, liabilities and capital for a given scenario. • Students are able to prepare a Balance Sheet from double entry transactions.

			12. Prepare and balance a Trial Balance, Balance Sheet and Trading, Profit and Loss Account from ledger balances.	• Solve simple problems to calculate the asset, liability or capital for a given transaction. • Draw up a simple 'T' balance sheet to illustrate the accounting equation using information given in a scenario. • Simulate a business of their own and prepare a report to include the following: a. list of the assets, liabilities and capital of the business b. pictures to illustrate the assets of the business c. a simple balance sheet showing the value assets, liabilities and capital (accounting equation should be used to create a balance, Assets = Liabilities + capital) d. dictionary clearly explaining the relevant accounting terminologies • Prepare double entry transactions. • Use scenarios that will help students understand debit vs. credit. • Prepare Final Accounts.	

INFORMATION TECHNOLOGY

Aims of the Grade 9 Information Technology (IT) Curriculum

The 21st century learner lives in a technologically charged environment and IT will provide them with the requisite knowledge and skills to understand the underpinnings of current technology and to prepare them for utilizing new and emerging technologies. The Grades 9 Information Technology (IT) curriculum will introduce students to the opportunities afforded by this dynamic field and begin to prepare them for a wide range of rewarding careers as well as for personal use. IT is relevant as it incorporates a wide range of problem solving techniques and skills that is needed for life-long learning. The fundamental purpose of the IT curriculum is to provide students with knowledge, skills and attitudes that will enable them to achieve success at every stage of life be it personal, professional or academically.

The goals of the IT curriculum are to enable students to:

- achieve an understanding of IT concepts
- develop essential skills such as critical thinking skills and research and enquiry skills.
- utilize the knowledge, skills and attitudes acquired through the study of IT to a variety of learning tasks in other subject areas
- develop life-long learning habits that will assist students in adapting to new and emerging technologies


THEORY

	DURATION 40 mins/80mins – 1 class	TOPIC	SPECIFIC OBJECTIVES	SUGGESTED TEACHING/LEARNING STRATEGIES	ASSESSMENT
UNIT:			Students should be able to:		
Unit 1.1	**1 week**	**Computer Health and Safety** Safe and healthy behaviors in the computer lab Computer related disorders and illnesses Negative effects of electronic devices on the environment. Care and maintenance of Computer Equipment.	• Discuss Ergonomics and how it affects computer related disorders • Discuss various computer related disorders/illnesses and methods to prevent them. • Apply and adapt appropriate health and safety practices while using a computer system. • Examine the negative effects of electronic devices on the environment • Display safe and healthy behaviours in the computer lab and while operating the computer system. • Demonstrate proper care and maintenance of computer equipment and accessories. • Design a computer or electronic devices safety programme.	• Students can develop in groups their own computer lab rules and dramatize it. • View a video on ergonomically designed equipment and furniture and discuss. • View pictures of computer system usage and classify as ergonomically safe or unsafe. • Use dramatization to communicate comparisons between correct and incorrect usage of computers. • Discuss safety procedures to be observed in a computer lab using cases (Do's and Don't's). **NB. PLEASE VIEW NSC CURRICULUM FOR ADDITIONAL SUGGESTED TEACHING AND LEARNING STRATEGIES.**	• Picture Collage created to accurately highlight ergonomically safe and unsafe practices. • Projects, essays, blogs of computer related illnesses/disorders. • Presentations • Flyer/song/poem communicating computer lab rules

<table>
<tr><td></td><td>DURATION

40 mins/80mins – 1 class</td><td>TOPIC</td><td>SPECIFIC OBJECTIVES</td><td>SUGGESTED TEACHING/LEARNING STRATEGIES</td><td>ASSESSMENT</td></tr>
<tr><td>UNIT:</td><td></td><td></td><td>Students should be able to:</td><td></td><td></td></tr>
<tr><td>1.2</td><td>4 weeks</td><td>Foundations of Hardware and Software
• The Computer
• History of Computer Development (Project)
▪ First Generation
▪ Second Generation etc.
▪ Types of Computers
▪ Mainframe computers
▪ Supercomputers etc.
• Hardware components of a Computer
• Types of Software
▪ Hardcopy vs. Softcopy
• UNIT TEST 1
• Input devices
▪ What it is and basic examples
▪ Output Devices
▪ What it is and basic examples such as Printers, Monitors etc.
▪ Types of Printers e.g Impact vs. Non-impact
• Central Processing Unit
• Primary and Secondary Storage</td><td>• Define the terms: computer, computer system, computer hardware, computer software.
• Differentiate between data and information
• Trace the historical development of computers.
• Compare the different types of computers and assess their key hardware components and performance levels.
• Explain the</td><td>• Formulate a definition of the terms above in objective 1 and create a glossary or Pictionary.
• View a video on hardware components of a computer.
• Draw the Processing cycle to show the relationship between input, processing, output and storage.
• In groups label the different functions of the keyboard.
• Give students examples of input, storage, processing and output devices and classify them based on the table below:
<table><tr><th>INPUT DEVICES</th><th>OUTPUT DEVICES</th><th>PROCESSING</th><th>STORAGE DEVICES</th></tr><tr><td></td><td></td><td></td><td></td></tr></table></td><td>• Video created by students showing hardware components correctly classified according to their functions.
• Diagrams of timeline created to show the development of computers.
• Song/poem/scrapbook portraying the timeline of computer development.
• Table prepared categorizing the two (2) main types of software.
• Output devices matched with their</td></tr>
</table>

			basic functions of the hardware components (input, output, storage and processing) • Classify hardware devices as input, output, storage and processing. • Classify software into the two main categories: system and application. • Differentiate between Hardcopy and Softcopy output • **UNIT TEST 1** • Describe different input devices and their uses.		functions.

			• Differentiate between Manual and Automated/Source Data Entry devices. • Describe different output devices and their uses. • Differentiate amongst the various types of printers stating their advantages and disadvantages. • Discuss the role of the Central Processing Unit and its components. • Differentiate between primary and secondary storage using examples. • Describe different storage		

			media and their uses. • Describe the concept of cloud computing and examine how it has impacted storage.		

	DURATION 40 mins/80mins – 1 class	TOPIC	SPECIFIC OBJECTIVES	SUGGESTED TEACHING/LEARNING STRATEGIES	ASSESSMENT
UNIT:			**Students should be able to:**		
Unit 1.3	2 weeks	Computer Ethics and Research • Basic computer ethics terms • Referencing Styles • Unethical and Ethical behaviours relating to the internet • Consequences of Unethical Practices • Presenting and Evaluating offline and online information	• Define terms associated with computer ethics and its practice (ethics, moral, computer ethics, intellectual property right, plagiarism, trademark, copyright, etc.) • Define terms related to unethical behaviours such as 'trolling', 'cyber bullying' 'cyber stalking', and software piracy • Describe the possible results of unethical practices using online resources • Evaluate scenarios to determine whether or not responsible/ethical practices ensued. • Identify Internet practices for which an individual is punishable by local laws • Recommend appropriate behaviours when using the	• Identify online and offline sources from a list of sources provided. • Create a short video/poster/brochure illustrating ethical practices governing the use of offline and online sources. • Give students scenarios and have them justify whether it is ethical or unethical practice. E.g. A Grade 8 girl types in her age as 18 years old so as to gain access to a certain website. OR An 11 year old girl signs up Facebook as 18 years to attract older males. • Be given a list of references that are scrambled. Put the	• Debate the issue of software piracy • Researched data accurately referenced • List of Do's and Don'ts appropriately address behaviours on the internet. • Presentation on the roles and functions of at least three (3) Jamaican organizations which protect content developers.

			Internet. • Describe the role/function of at least three Jamaican organizations that are responsible for protecting the rights of content creators • Apply the APA and MLA styles when making reference to online and offline sources	reference in the correct order according to APA or MLA referencing format.	

	DURATION 40 mins/80mins – 1 class	TOPIC	SPECIFIC OBJECTIVES	SUGGESTED TEACHING/LEARNING STRATEGIES	ASSESSMENT
UNIT:			**Students should be able to:**		
Unit 1.4:	2 weeks	Problem Solving and Program Design • Problem Solving and The Defining Diagram **a. Steps in Problem-Solving** **b. Solving simple problems** **c. The Defining Diagram** **d.**	• state the five steps involved in problem solving • solve basic everyday problems • tell the purpose of a defining diagram • draw a defining diagram • solve simple computer problems using the defining diagram appreciate the need to analyze and solve problems	• Have students watch a video outlining a problem and develop a solution to the problem seen. • Give students a real-life scenario (E.g how to bake a cake or how to retrieve messages from their voicemail) and have them outline the steps to solving these scenarios. • Use a defining diagram to breakdown problems given into Input/Processing/Output. • In class Practise Drills • Have students give a real life problem they face and develop a solution to it using the Problem Solving Phase.	1. Problem solving steps listed 2. Students solve given problems 3. Defining diagrams created depicting problem solving situations in computing.

Students Textbooks:

- Information Technology Made Simple by George King and Tiffany Forbes
- CXC/CSEC Information Technology A Guide to Problem-Solving and Program Design by P. Francis- Cobley

Assessment Procedures include:

1. Two Unit Tests
2. At least two (2) Class Work
3. At least two (2) Home Work
4. Projects

Learning Experiences include:

1. Small group assignments
2. Individual assignments
3. Oral presentations (individual and group)
4. Role Plays

PRACTICAL

	DURATION 40 mins/80mins – 1 class	TOPIC	SPECIFIC OBJECTIVES	SUGGESTED TEACHING/LEARNING STRATEGIES	Assessment
Unit			**Students should be able to:**		
TERM ONE: **FEBRUARY TO JUNE**	**Unit 1.5: 2 weeks** **Unit 1.6:** 4 weeks	Word Processing: Keyboard Mastery **KEYBOARDING TECHNIQUES** a. Developing speed and accuracy a. Correct Posture at the keyboard b. Correct spacing after punctuations • **CREATING A WORD DOCUMENT**	• Practise and develop speed and accuracy at the keyboard using proper touch keyboarding techniques on alphanumeric keys. • demonstrate correct posture at the computer. • use correct spacing after punctuation marks. • label the MS Word Window • select appropriate margins, paper size and paper orientation for specific documents. • use the Undo and Redo functions • apply page numbering • create a Header and Footer • use Superscript and Subscript to	• Demonstrate correct use of the computer using the home keys. • Illustrate the use of the keyboard • Illustrate videos on correct computer usage. • Reference ergonomics unit done in prior class. • Demonstrate correct spacing after punctuations. • scribe the role of the different sections of the displayed word processing interface and draw and label the word processing window.	• Speed drills to demonstrate proficiency at typing. • Observation and quiz on correct posture. • Quiz on correct spacing. • Puzzles • Labelling the Word Interface • Creating a word document to incorporate the use of a header and footer, subscript, superscript, paper orientation, etc.

		a. MS Word Window b. Selection of different margins, paper size and paper orientation c. Undo and Redo Functions d. Page Numbering e. -Header and Footer/Superscript and Subscript Word Processing	text	• Reproduce a word processing document with the many formatting features incorporated. • Discuss the procedures to insert graphics. • Work in groups to discuss a situation in their school environment and compose a letter using mail merge to the Parents informing them of these problems. • Use table feature of a word processing programme to prepare an electronic copy of their school timetable.	

		• **FORMATTING WORD DOCUMENTS -** **a. Spell Check Function** **b. Cut and Paste Text** **c. Copying and Pasting of Text** **d. Underlining, Bold and Italize Text** **e. Font Style, Size and type** **f. Alignment of Text** **g. Line Spacing** **h. Inserting Bullets and Numbering** **i. Page Break** **j. Pictures**	• **use the spell check Function** • **cut (remove) text and paste** • **copy text and paste** • **underline, bold and Italize Text** • **change font style, type and size** • **change the alignment of text** • **change the line spacing of a paragraph** • **insert Bullets and Numbering** • **insert Page Breaks** • **insert Pictures in a Word Document**	• **Students will create flyers and insert their names in a header** • **Students will create simple documents and apply basic formatting features such as bolding, italizing, font face, etc.** • **Students will create simple documents to include pictures, bullets and numbering, page breaks, etc.**	• **Reorganize information in a given document using cut/copy/paste feature.** • **Document properly reproduced and formatted based on instructions.**

		• **INSERTING COLUMNS AND CREATING TABLES** a. Creating a two column document b. Inserting a column break c. Creating tables of different size and width d. Rotating text in a table e. Adding and deleting Columns and Rows	• create a two-column document • insert a column break • create tables of different size and width • rotate text in a table • add a column and row to a table • delete a column and row in a table	• Students will create 2 column brochures • Students will create menus and recipes incorporating bullets and numbering, pictures, etc. • Students will create a table showing their time table • Incorporating columns and tables in a given document	• Documents created showcasing recipes and menus • Students time table properly reproduced and formatted

	DURATION 40 mins/80mins – 1 class	Topic	SPECIFIC OBJECTIVES	SUGGESTED TEACHING/LEARNING STRATEGIES	Assessment
Unit			**Students should be able to:**		
February to June	**Unit 1.7: 4 weeks**	**Spreadsheet Management** 1. Uses Of Spreadsheet 2. Key Terminologies 3. Spreadsheet Functions Charts	1. Examine the use of a Spreadsheet software 2. Define key terms associated with spreadsheets 3. Create basic spreadsheet 4. Insert basic sum, average, maximum and minimum functions. 5. Merge and Center heading	• Discuss key terms associated with spreadsheet from a projected image of a spreadsheet window then complete a crossword puzzle using these terms. • Launch a spreadsheet application, describe the role of the different sections of the displayed spreadsheet interface and draw and label the main parts of spreadsheet window. Compare the spreadsheet application interface to a word processing application interface. • View a video demonstrating how data is entered into cells and formatted. • Observe teacher computing using simple arithmetic formulae/functions in a spreadsheet, and then engage in a discussion about their observations. • Demonstrate solving a problem using specific electronic	• Crossword puzzle with spreadsheet terms correctly completed. • Parts of the spreadsheet application interface correctly labelled • Formulae and functions appropriately used in a spreadsheet document to solve problems. • Appropriate chart type selected based on scenarios. • Data graphically represented using appropriate charts

spreadsheet arithmetic

operations.

- Collect the following data from at least 10 members of their class: name, age, shoe

size and height. Students will enter the data in a spreadsheet application similar

to the table below:

Name	Height	Age	Shoe Size
Anna	120cm	12	3
Beth	127cm	11	2
Simon	140cm	12	4

 Make all the titles and names bold

 Give the Column titles a yellow background

 Give the names a blue background

 Place border around the cells (rows and columns)

 Sort the data by the different column headings

Students Textbook:

Grade 9 Instructional Manual by Natalee Johnson and Andrienne Jones available at the schools book shop

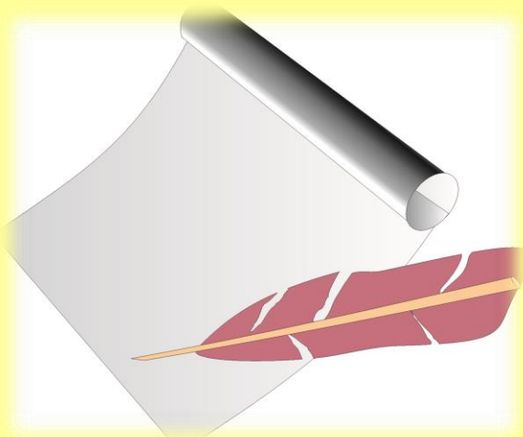
Assessment Procedures include:

1. Two Unit Tests
2. Minimum two (2) Class Work
3. Minimum two (2) Home Work
4. Quiz

Learning Experiences include:

1. Question and Answer Sessions
2. Drilling Exercises
3. Class Reading
4. Computer Oriented Exercis

English Language



UNIT/THEME	DURATION	TOPIC	SPECIFIC OBJECTIVES	SUGGESTED TEACHING AND LEARNING ACTIVITIES	ASSESSMENT
TERM ONE			Students should be able to:		
Theme 1: Heritage- Connecting Past, Present, Future.	5 weeks	Persuasive Writing	1. Define Persuasive Writing 2. Identify the features and devices of persuasive writing 3. Employ persuasive devices accurately and effectively in different contexts	❖ Writing a blog ❖ Collage ❖ Poetry ❖ Advertisements	❖ Students will write a Letter to the Editor
Theme 1: Heritage- Connecting Past, Present, Future.		Grammar: Pronouns Nouns	1. Identify and differentiate between the various types of pronouns. 2. Employ their knowledge about types of pronouns in persuasive writing. 3. Work cooperatively in groups to complete tasks about types of pronouns in collaboration with the theme. 1. Identify and differentiate between the various types of nouns. 2. Employ their knowledge about types of nouns to persuasive writing. 3. Work cooperatively in groups to	❖ Oral discussions ❖ Pronouns games ❖ Worksheets with nouns ❖ Unscramble words and sentences	❖ Students will write a Friendly Letter about the topic. ❖ Completing activities in a workbook. ❖ Students will complete Workbook activities.

			complete tasks about types of noun in relation to the theme.		
		Comprehension Context Clues Main Idea	1. Use context clues to arrive at implied ideas. 2. Use their own words to convey facts stated explicitly. 3. Work cooperatively in small groups to identify facts stated explicitly 1. Read given paragraphs and identify the main ideas. 2. Explain the distinction between main and subordinate ideas. 3. Select examples of relevant subordinate ideas to match main ideas while listening respectfully to each other's responses	❖ Play the "Guess Who" game ❖ Read comprehension passages ❖ Students will be asked to give a summary of their daily activities. ❖ Dramatic reading of paragraphs	❖ Complete Comprehension activities from <u>English for All</u> ❖ Complete summary activities from <u>English for All.</u>
Theme 2: Refining My Character	6 weeks	Expository Writing	1. Define Expository Writing 2. Differentiate the different types of expository writing	❖ Research project ❖ Fashion show ❖ Blogging	❖ Students will work in groups to create a Portfolio of all 4 types of

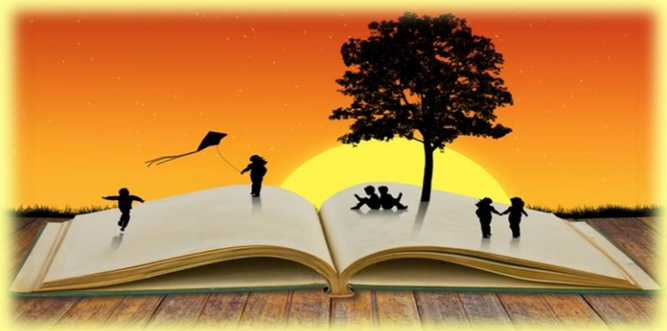
			3. Identify the different features of each type of expository writing 4. Discuss the features of cause and effect. 5. Discuss the features of problem solution 6. Discuss the effects of sequencing 7. Discuss the features of compare and contrast 8. Write effective expository essays	❖ Video ❖ Critique ❖ Panel discussions ❖ Oral presentations	Expository Writing
		Grammar: Subject and Predicate Transitive and Intransitive Verbs	1. Identify and differentiate between the simple and complete subject and predicate. 2. Employ their knowledge about types of subject and predicate to expository writing. 3. Work cooperatively in groups to complete tasks about types of subject and predicate in collaboration with the theme. 1. Identify and differentiate between transitive and intransitive verbs. 2. Employ their knowledge about types of transitive and intransitive verbs to	❖ Role play ❖ Writing paragraphs while applying the rules.	❖ Students will complete workbook activities. ❖ Students will create sentences using subject and predicate

			expository paragraph writing. 3. Work cooperatively in groups to complete tasks about transitive and intransitive verbs in collaboration with the theme.		
		Comprehension Denotative and Connotative Language Antonyms and Synonyms	1. Explain the difference between denotative and connotative language. 2. Answer comprehension questions about the denotation of certain expressions while assessing their parents' attitudes. 3. Use their general knowledge to give the connotation of certain expressions 1. Define and differentiate synonyms and antonyms 2. Use their knowledge of antonyms and synonyms to help them decipher the meaning of comprehension passages. 3. Create sentences with synonyms and	❖ Active discussions ❖ Games ❖ Vocabulary pool ❖ Synonym and Antonym games	Responding to questions at various levels

			antonyms in relation to the topic.		
TERM 2			Students should be able to:		
Theme 3: Establishing Healthy Relationships	5 weeks	Descriptive Narrative	1. Define descriptive narrative 2. Understand the importance of the use of adjective and adverbs in descriptive Writing 3. Identify the figurative devices used in descriptive writing 4. Identify the four aspects of narrative writing 5. Employ both descriptive and narrative elements to effectively compose a descriptive narrative essay	❖ Cartoon Strips ❖ Watching a video and create a Venn diagram ❖ Talk show ❖ Missing person/wanted poster	Descriptive Writing essay
FIRST SEMESTER EXAMINATIONS(until Feb 14)					
Theme 4: Defining my destiny	5 weeks	Business letter Writing	1. Provide examples of appropriate contexts for the use of business letters 2. Identify the components of the business letter format 3. Differentiate between the two types of business letter formats 4. Explain what is a memo 5. Identify the parts of a memo 6. Use the appropriate tone and diction for business and memo documents 7. Use the 5 W's in writing effective	❖ Word Phrase Puzzles ❖ Commercials ❖ Panel Discussion ❖ Debate	❖ Job Application Letter

			business letters and memo		
Term 4			Students should be able to:		
Theme 5: The 21st Century Learner	4 weeks	Summary Writing	1. Identify and explain what a summary is. 2. Discuss the parts of a summary. 3. Identify and explain the importance of a summary. 4. Delete all excess information from passages. 5. Construct a proper summary of a literature.	❖ Create songs/poems ❖ Drama production ❖ Posters ❖ Animations	❖ Summary of a selected literature piece.
Unit test					
The 21st Century Learner	5 weeks	Collection of all four types of writing	1. Identify and explain all forms of writing- providing examples. 2. Discuss the roles and importance of all types of writing discussed and how they are necessary for the growth and development of an individual. 3. Express why these forms of writing are necessary to be taught.	❖ Posters ❖ Advertisements ❖ Comic strips ❖ Songs/ drama ❖ Discussions	❖ Drama Production

ENGLISH LITERATURE



	TOPIC	DURATION	SPECIFIC OBJECTIVES	SUGGESTED TEACHING AND LEARNING ACTIVITIES	ASSESSMENT
TERM 1: SEPTEMBER TO JANUARY. **UNIT/ THEME**			Students should be able to:		
Unit 1, **Theme: Heritage- Connecting Past, Present and Future.** **September- January**	Heritage in the Jamaican Secondary Education system. ***Text: Inner City Girl*** ***Prose/Short Story: The Two Grandmothers and Georgia and them their United States***	2-3 weeks.	1. Define Heritage/Education. 2. Identify at least (2) ways in which heritage affects education in today's society. 3. Discuss three aspects of culture relevant to education.	❖ Group Presentations. ❖ Pictorials ❖ Advertisements ❖ Editorials.	❖ Critique of the role of heritage in the education sector- personal journal responses

	Role of Background Knowledge ***Text: Inner City Girl*** ***Poem: Dreaming Black Boy***	2 weeks	1. Provide background information about the author. 2. Identify the genre of the novel. 3. Discuss the purpose of the blurb, cover of the book and the introductory chapters. 4. Comment on the attitude of the persona from the poem. 5. Discuss the impact of discrimination. 6. Explain the effectiveness of two poetic devices.	❖ Group presentation ❖ Oral presentation ❖ Pictorial presentations ❖ Research	❖ Biography of the author. ❖ Personal revised version of the cover with respect to heritage
	Characterization ***Revision of both POEM AND SHORT STORY.***	2 weeks	1. Define the term characterization? 2. Identify and explain the types of characters. 3. Identify the types of characters found in the novel. 4. Comment on the role of each character.	❖ Pictorial ❖ Group work ❖ Songs/ poems ❖ Comic strips	❖ Identify at least one of each type of character taught in the novel, *Inner City Girl*, giving reasons for each. ❖ Create a short play involving at least 2 types of characters taught.
Unit 2, Theme: Refining my Character	2-3 weeks.	Themes/ Symbols/ Irony	1.	❖ Cartoon Strips ❖ Watching a video and create a Venn diagram ❖ Debate ❖ Panel Discussion	❖ Students should work in groups to create Inter-Chapter theme Posters inclusive of symbols. ❖ Rewrite the ending of the story.

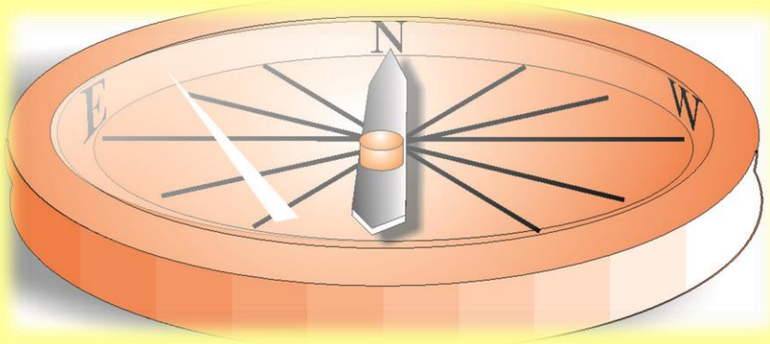
		Text: Inner City Girl ***Prose***			
	2 weeks	Plot ***Text: Inner City Girl*** ***Poem:***	1. Define the term plot. 2. Identify the sections that are necessary for the development of a plot. 3. Identify steps to create an effective plot. 4. Comment on the significance of the title of the poem. 5. Summarize the poem	❖ Word Phrase Puzzles ❖ Commercials ❖ Panel Discussion ❖ Debate	❖ A Comic Strip ❖ 3/D model of the plot of the text.
Unit 3, Theme: Establishing Healthy Relationships.	2-3 weeks	Setting ***Text: Inner City Girl*** ***Prose:*** .	1. Identify and explain what is a setting 2. Identify and explain the importance of a setting. 3. Critique the setting provided in the novel. 4. Discuss the importance of setting in the short story. 5. Comment on the role of satire in the story. 6. Explain the use of characterization in the story.	❖ Create songs/poems ❖ Drama production ❖ Posters ❖ Animations	❖ Students will create 3D model or drawing of the physical setting. ❖ Students will create a poster reflecting each of the female characters from the story.

	2 weeks	Point of View ***Poem:***	1. Explain all forms of point of view. 2. Discuss the importance of point of view. 3. Comment on the role of the mother from the poem. 4. Express their views on male-female relationships. 5. Comment on the use of poetic devices.	❖ Posters ❖ Advertisements ❖ Comic strips ❖ Songs/ drama ❖ Discussions	❖ PowerPoint. ❖ Creative Writing Piece
UNIT:			Students should be able to:		
TERM 2: **Unit 4, Theme: Defining my destiny**	2-3 weeks	Background to the play Life of the playwright ***Text: As You Like It. – William Shakespeare*** ***Prose***	1. Describe the life of the playwright 2. Contribution to literature 3. Discuss the era during Shakespeare time and the present era.	❖ Do a research on the inheritance in the 18th century/Shakespearean era.	❖ Biography of playwright (Research) ❖ Locate contemporary picture to represent setting and character from the story, explain why picture is a good representation ❖ Write descriptions of characters.

	2-3 weeks	• Techniques used by the writer • Themes • Plot • Characteristics of Drama/Elements. ***Text: As You Like It*** ***Poem:***	1. State the techniques used by the writer 2. Analyze themes in the story 3. Outline the happenings in each scene	❖ Journal entry on thoughts about the story, characters, etc. as they read the play. ❖ In a tabular form do comparison-contrast between life of Oliver and Orlando	❖ List techniques used by playwright – support with examples (respond to questions) ❖ Explain themes from the story ❖ Write summaries (in tabular form)
Unit 5, Theme: The 21st century learner.	2-3 weeks	• Setting • Characters ***Text: Green Days by the River – Michael Anthony*** ***Prose***	**1.** Provide vivid details of the settings in the story and the play. **2.** Describe the characters from the story and novel.	❖ Do a project on ***Green Days by the River*** ❖ Pictorial presentation	❖ Locate contemporary pictures to represent setting and character from the story and they play. ❖ Explain why picture is a good representation ❖ Write descriptions of characters. ❖ Explain how characters bring out themes

	2-3 weeks	Literary essay ***Text:*** ***Poem***	1. Identify what is a literary essay. 2. Identify the parts of the essay. 3. State the role and function of the literary essay. 4. Outline the steps in writing the literary essay.	❖ Debates ❖ Venn diagrams for comparison and contrasts ❖ Write poems ❖ Oral presentation/ recitation	❖ Respond to questions based on the elements ❖ Argue titles and their appropriateness ❖ Support themes with evidence from the poem and prose.

GEOGRAPHY



	DURATION 40 min/80 min = 1 Class	TOPIC		SPECIFIC OBJECTIVES	SUGGESTED TEACHING AND LEARNING ACTIVITIES	ASSESSMENT
UNIT:				Students should be able to:		
TERM ONE **SEPTEMBER TO JANUARY**	Unit 1.1 - 5 weeks	Introduction to Population (Migration and Settlement – Caribbean and World)	Population size and distribution in selected Caribbean islands Regional, international and Forced migration (human trafficking) Global safety and security Statistical diagrams, Proportional circles, flow line maps, dot maps	❖ Define the terms population, migration and settlement ❖ Using a dot map, describe Jamaica's population distribution ❖ Given population data, create a simple dot map. ❖ Outline how major physical landform features influence population distribution in Jamaica ❖ Explain the concentration of Jamaica's population in coastal zones. ❖ Draw simple bar graphs to show population of Jamaica by parish ❖ Compare urban settlements to rural settlements in Jamaica. ❖ Identify the two main categories of migration ❖ Citing evidence, from given scenarios, explain why people move from one place to another in Jamaica.	❖ In groups, brainstorm to arrive at a definition of the term population. After arriving at the definition, given a blank map of Jamaica and population figures for each parish design a method to represent the population figures on the map. Compare the method designed to a Dot map of Jamaica. Write a simple description of where the population is mainly found in Jamaica. ❖ Overlay the population distribution map on other types of maps such as a relief map or economic resource map of Jamaica and simply describe how the population spread is influenced by other factors. ❖ Using Google Earth, project a map of the community on the whiteboard or on a wall. Obtain the population data from STATIN or PIOJ for major towns and cities in Jamaica. Cut paper circles of specific diameters to represent set numbers of people. Write a description of the spread and factors affecting the spread. ❖ As a class, create a bar graph by arranging themselves into twelve lines	• Description of the population spread accurate; method designed to show population spread. Dot map accurately interpreted. • Spread of population accurately related to other factors such as relief of land. • Dot map accurately create • Bar graph accurately created. Axes correctly labelled; information interpreted accurately • Bar graph is accurately drawn and labelled. • Criteria for determining rural and urban framed; settlements

				❖ Identify the main types of migration in Jamaica. ❖ Identify the effects of migration on rural and urban settlements in Jamaica ❖ Construct flow charts/flow maps to show the migration of people ❖ Understand how population data is obtained ❖ Cooperate with census takers.	according to the date and month they were born. Using chalk, draw and label the axes of the bar graph on the floor. Draw an outline around the students in each line to represent the bar. Label the axes appropriately. Discuss what each bar represents. ❖ Using a graph sheet, draw bars to represent the number of people in each parish in Jamaica. Label axes appropriately. ❖ In groups, brainstorm to arrive at a set of criteria to determine when a settlement may be considered rural or urban. Conduct research to identify the present standard used to determine rural and urban. Examine photographs showing various communities. Based on the criteria developed categorise each community examined as a rural settlement or urban settlement. ❖ In groups, given stories detailing migration experiences written by the teacher or downloaded offline, students should identify the categories of migration and list the reasons people move from a place; reasons they selected a particular destination and the effects the migration would have on the place they left and the place in which they settled. ❖ Write and produce a short play containing information on reasons	accurately classified; • Categories of migration correctly identified; reasons for migration identified • At least five reasons people migrate depicted; at least two effects on the source areas and two effects on the destination identified. • At least five reasons for migration accurately identified from a photograph. • Flow Line map accurately created - arrows accurately placed to show source and destination (and volume of migrants) • Datasheets accurately filled in; census conducted successfully; steps for conducting a census identified.

					persons may migrate from their community and reasons they select their destination. The play should also identify some of the effects of migration from one area to the next. ❖ In groups, students should discuss a given cartoon/photograph to determine reasons people migrate. • In groups, given migration figures; a blank map of Jamaica and arrow cutouts, design a flowchart to show movement from one area to another. Arrows should be positioned from the source to the destination. Arrows may be scaled to show the volume of migrants. • In groups, determine types of information they would like to find out about a selected group in the school. Conduct research on how censuses are carried out and design a method of collecting the information needed. Conduct the census and gather the data.	
	Unit 1.2 – 4 weeks	Interpreting Maps and Photographs	Map Symbols Direction and Bearing Measuring curved distances Four- and Six-Figure grid	• Formulate definitions for the terms scale; height; contour; vertical interval; bearing • Use the eight-point compass to find direction on a map from one place to another • Use a protractor to calculate angular	• In groups, use a magnetic compass to find north. Given a set of labelled arrows, create an eight-point compass rose at a selected point to match the readings on the magnetic compass. Students may place a replica of some selected physical feature at the centre of the compass rose. After all the groups have created their individual compass roses, students may begin to measure the direction from one point to	• Correctly using a magnetic compass; compass rose accurate; Protractor used accurately; angular bearing found ($\pm 2^0$)

			reference Representing height Simple cross section and Intervisibility Gradient Sketch maps Analyzing maps	bearing on a map from one point from another • Explain why angular bearing is important • Use the linear scale to measure straight line and simple curved distances between two places. • Express the scale of a map as a ratio or a statement • Construct grids using intersecting vertical and horizontal lines • Identify Eastings and Northings on maps • Find locations using four-figure grid references • Draw simple maps to scale. • Identify how height is represented on maps • Identify simple landform features from contours • Associate the landforms shown on maps to features shown in Photographs, satellite imagery and in the natural environment.	another. To precisely determine the direction, students will run a piece to string from their position to the object for which they want to find the direction. After constructing the paper compass rose at a selected point, students will run a piece of string from the centre of the compass rose to another point/feature in the room. Given a large protractor, students will place it on the compass rose, with the zero on the protractor aligned to the North arrow on the compass rose. They will read the value on the protractor, at the point the string passes through the arc of the protractor. • Individually, given topographic sheets, and a worksheet, students will transfer the skills of finding direction to the map. On the map, the required points will be located. An eight-point compass rose will be accurately drawn and labelled at one point using a pencil. From the centre of the compass rose a line will be drawn straight to the second point. The direction of the second point from the first will be read. The student protractor will be used to find the angular bearing. • In groups, given clues students will be	• Correctly positioning the protractor; Reading the protractor accurately • Eight-point compass rose accurately drawn and labelled on map; direction accurately was given; bearing accurately • Location plotted accurately

				• Draw simple cross-sections from contour lines • Construct a sixteen-point compass • Use a protractor to measure angular bearing from one point to another • Explain the relationship between compass direction and angular bearing • Establish the direction and bearing of one point from another point on a map • State the absolute location of places using six-figure grid references • Identify the ways in which a map scale may be represented • State map scales as statements • Measure curved and straight-line distances between points on maps • Calculate distances using map scales • Enlarge and reduce map sections to scale	required to use the compass to find direction to "hidden treasure". When each treasure has been located, students will identify the location of the treasure on a map of the school campus. The teacher may generate this map from Google Earth. Write a short paragraph explaining why angular bearings are used with directions. Students can research careers which require the use of a magnetic compass and the ability to read directions and bearings accurately. • In groups, students will create pieces for a diorama replicating natural and man-made features found in the environment. Place the pieces created at various points in the room. Students will use a measuring tape to measure the straight line distances between selected points of the diorama. Record these measurements. Give each group a blank piece of paper with a border. Given a map key, students will accurately sketch the pieces of the diorama, representing the pieces accurately as conventional symbols. Students will use a ruler to draw a line on the map and divide into 1-centimetre	At least one accurate reason identified • Distance accurately measured and recorded • Diorama accurately sketched using symbols in the Key/Legend; • Scale accurately drawn and labelled; • Scale accurately written as a ratio and as a statement. • Paragraph

				• Calculate the new scale for enlarged or reduced sections of maps • Describe landforms represented by contours on maps • Describe in simple terms the types of slopes that are represented by contours • Calculate the gradient of slopes • Construct cross-sections and determine intervisibility between points • Use the Legend/Key to identify the human activities that are undertaken in a given area • Suggest reasons for the distribution of specific activities over an area • Sketch a base map from an aerial photograph or satellite imagery.	equal segments. Students will need to determine what distance in the room should be represented by each centimetre on the map. When this has been done, students will label the linear scale drawn. Write the scale created as a ratio and as a statement. • Write a short paragraph explaining the purpose of a scale on a map • Given a map with a scale, students will use string and/or paper to measure straight and curved distances between two points. Using the scale, convert these distances to real-life representations. Record measurements in a table • Print a blank snake and ladder template and label the grids. Give each group a die (dice) and have them play. Given a record sheet, each student should record each grid in which they fall. • Make two copies of the sketch maps students previously drew. Using the first copy of the sketch map, students will draw intersecting horizontal and vertical lines, at specific dimensions, as seen on the snakes and ladder. Students will label the grids similarly to that done on snakes and ladder. They will give the basic locations of the features drawn on the sketch. • Looking at a projected simple map with grids, students will brainstorm to find out how the grids are labelled. Given the labels EASTINGS and NORTHINGS, students will label the vertical and	accurately details the importance of the map scale • Measurements on map accurate; conversions accurately done • Location accurately recorded Grids drawn accurately; location accurately recorded • Eastings and Northings accurately labelled; Reasons for labels accurate • Location accurately recorded; At least one advantage listed; grids appropriately labelled • Cone created to specifications given; height

					horizontal lines respectively, giving reasons for the labels. On the second copy of the sketch map, students will label grids using the grid referencing system. They will find the location of features on the map using this system. Write out the advantages of using grid referencing labelling, rather than a single label as used on snakes and ladders. • Using cartridge paper and tape create a cone that can stand on its own. Write a description of the cone. Wrap strips of string around the cone at regular height intervals from the base to the top. Tape the ends of the strings together. Record the height on each strip of string. Make notes of what happens to the length of the string from the base of the cone to the apex. Remove the strings (still taped at the ends) from the apex to the base and place flat, one within the other, from the smallest to the largest on the desk. • Discuss how the strings still represent the characteristics (height and width) of the cone. Lay a strip of paper flat on the strings dividing them into two equal parts. Mark on the paper, every point the string touches the paper and label each point with the appropriate height. On a graph sheet, label the vertical axis with height readings representing the vertical interval shown on the map. Place the strip of paper	measured correctly at regular vertical intervals • Graph accurately is drawn; vertical axis labelled correctly; Cross-section drawn and labelled. • Cross-section accurately drawn and labelled • Cross-section accurately matched to contour outline. • Accurate uses listed • Sixteen-point compass rose accurately constructed; magnetic compass used accurately and compass rose accurately aligned

					with markings on the horizontal axis. Plot each height marked on the strip of paper. Connect each plotted point. In groups, discuss how the two-dimensional drawing plotted, relates to the original three-dimensional cone created. • Examine a map, showing very simple landform features using contours. • Draw simple cross-sections from the contours representing these features. • Given a worksheet showing simple landforms, students should match cross sections to the appropriate contour outlines. • List three uses of contours based on the activities • In small groups, using a protractor and paper arrows, construct a sixteen-point compass rose. Use a magnetic compass to properly align the sixteen-point compass based on their location. Each group will compare the compass constructed to other groups' compasses which should all be aligned the same way. • Students will use the compass rose created to find direction from one point in the classroom/schoolyard to another. In groups use a chalkboard protractor along with the sixteen-point compass to measure the direction and bearing from one point selected by the group to determined points in the environment. Individually, draw a	• Protractor accurately used; direction and bearing correctly • Grid equally divided into one hundred even squares/grids; location accurately determined using six-figure grid referencing • At least three ways of representing maps scale determined; distance accurately measured. Calculations of distance on the ground accurate • Model accurately created; landform accurately described using simple terms; gradient accurately

					compass rose on a map and conduct the same activity of finding direction and bearing from one point to another. • In groups, at an appropriate site in the schoolyard, measure an area of at least 20 metres by 20 metres. Divide the area measured into equal squares or grids. Mark the grids using rope/string. Students will label the grids recalling how it is done on maps. Students may place themselves or objects in the grids and determine location using four-figure grid referencing. Placing more than one object/student in the same grid, in groups determine a method for differentiating the locations of the objects/students. • Apply method designed to a map to find the location of various features. • In groups, examine a map and record the ways in which the scale is represented. Most maps will show the linear and ratio scales. Brainstorm to determine other ways the scale may be represented. Given string or paper students will measure the distance in centimetres between two points on a map. The scale will then be used to convert the measurements to actual distances in reality. • In groups, given two copies of a simple topographic map, use cardboard and one copy of the topographic map to create three-dimensional models of simple	calculated; intervisibility accurately determined; cross-section accurately is drawn • List of features noted accurately; sketch map is drawn; like features assigned the same symbol or colour; map contains all five features – Border, Legend/Key, Arrow (North), Scale, Title; Suggested reasons for distribution given.

					landforms. Compare the landform to the second copy of the topographic sheet. Examine the model created and describe the landform presented, using simple terms to describe the slopes of the landform. Compare models to differentiate between landforms. Using the model and the map scale, determine the gradient of slopes of the landform modelled. Using string and the model created, determine the intervisibility between selected points. Construct cross-sections from the copy of the map and draw a line to represent the line of sight. Compare findings of intervisibility from the cross-section to intervisibility on the model • In groups, carry out a walk-through of a predetermined area of the school community. Students will record a list the features seen. Using pencil and pencil crayons, students will assign a symbol or colour to each feature thereby generating a Key/Legend. Using Google Earth Software, students will obtain a snapshot showing the aerial view of the same area examined. Using this snapshot, students will draw a sketch map of the area. Examine the sketch and describe the distribution of activities or features. Suggest reasons for the distribution seen.	

UNIT:				Students should be able to:		
TERM TWO **FEBRUARY TO MARCH**	Unit 2.1 - 3 weeks	Internal Forces and Processes of The Earth Introduction to rocks and Soil	Structure of the earth Plate tectonics Natural hazards Definition of rocks and soils Formation of rocks and soil Rock types in Jamaica Uses of rocks Soils in Jamaica Weathering and erosion Simple geology maps	• Label the internal structure of the Earth. • Describe the characteristics of the core, mantle and crust. • Formulate a definition of plate tectonics. • Revise the definition of plate tectonics based on the textbook definition. • Identify possible reasons the Earth's crust moves. • Label major continental and oceanic plates. • Differentiate between oceanic crust and continental crust. • Describe the Caribbean plate and the adjacent plates. • Define the characteristics of an earthquake • Explain ways earthquakes are recorded and measured • Classify earthquakes according to depth and origin • Describe the types of plate boundaries. • Describe the processes occurring at each plate boundary. • Assess the nature of the movement along normal, transform and reverse faults.	• In groups, use a hard-boiled egg or another appropriate model, to explain the exterior/interior structure of the Earth. Measure the width of the various components of the egg (the shell, the albumen and the yolk) and determine the ratio of the shell to the albumen to the yolk. Given the dimensions of the various components of the structure of the Earth calculate the ratio of the Crust to the Mantle to Core. Compare the Earth's structure to that of the egg. View online video on the structure of the interior of the earth and have a class discussion on the characteristics noted. Use appropriate software where available to draw and label the diagram of the structure of the interior of the Earth and insert the following: inner core, outer core, mantle and crust. • In groups, given a set of jigsaw puzzle pieces of the plates of the Earth's crust, students will arrange the major plates in order. Students will explain the placement of each piece and indicate the evidence on the pieces which gave clues as to where they should be placed. Check the evidence suggested with credible online sources or in textbooks. Write a list of at least three pieces of evidence to support the positions of the	• Three layers of the Earth's interior identified and labelled correctly; ratio correctly calculated; diagram of the interior structure of the Earth accurately drawn • Jigsaw puzzle pieces arranged accurately; at least two pieces of evidence which gave clues to the correct placement of the pieces identified. • At least three of the following four movements demonstrated – towards each other; move apart; past each other while going in opposite directions; past each other while going in the same direction (one block must be moving faster than the other); Three types of plate margins drawn with

				• Account for the occurrence of earthquakes, volcanoes, island arcs, Fold Mountains, mid-ocean ridges, rift valleys, lava plateau, accretionary prisms/wedges, subduction zones and faults at plate boundaries. • Connect the occurrence of earthquakes and volcanoes to plate margins • Compare the structures of shield cones, composite cones, ash and lava cones and dome cones • Classify volcanic landforms as intrusive or extrusive • Link the formation of hot springs and geysers to volcanic activity. • Distinguish among natural events, natural hazards and disasters. • Draw a map of the local community and identify the places at risk from specified natural hazards. • Using the theory of plate tectonics, explain the occurrence of the earthquake in Caribbean countries. • Explain the effects of the earthquake and volcanic	plates • In groups, given cuboid wooden blocks, brainstorm the ways in which two wooden blocks can move in relation to each other (towards each other, apart, slide past each other) and assign the relevant terms to their answers (convergent, divergent and transform). Applying an elastic band to the wooden blocks, repeat the movements and determine when the force of tension or compression is being applied. Based on the movement demonstrated with the wooden blocks and elastic bands, draw and label the three types of plate margins and their movements. Conduct research to determine the various names applied to each plate boundary. Apply these movements to the jig-saw puzzle pieces. • The puzzle pieces should have arrows which indicate the direction in which the plates are moving. In groups, students will move the pieces around according to the direction indicated by the arrows and note the impact that the movement of one piece has on another piece. From this gather information on the movement of the three types of plate boundaries. On a map of the world showing major plates, colour the three types of plate margins. Label the major plates. Create a key to define the colours	arrows indicating movement and correct labels; Names for each plate determined – convergent/destructive; divergent/constructive; transform/passive; Label showing force of tension or compression accurate for each plate margin. • All three major boundaries accurately identified and colour coded for the Key/Legend; Major plates labelled correctly; Map characteristics included – Border; Legend; Arrow (North); Scale; Title • At least two pieces of evidence outlined for each category Example: Biological – fossil evidence; spread of some animals and plants; Climatic – glaciers;

				eruption on a selected Caribbean country.	used on the map. Write an appropriate title for the map and ensure that the map has all five characteristics. • Conduct research to determine the evidence that plates move and move the landmasses located on them. In groups, create a list outlining the evidence of plate movements found in different categories: Geological Evidence; Climatic Evidence; Biological Evidence • Write a definition of plate tectonics, after viewing online videos showing plate movements. Suggest the most likely mechanism which causes plates to move after conducting a simple experiment using a Bunsen burner, beaker and water, to show convection currents in fluids. View online or offline videos which show animations of convection currents in the mantle as well as plate movements. Add convection currents to the diagram of the structure of the Earth. Examine the map in their atlases or their jig-saw puzzle showing the fragments or plates into which the outer crust is divided and name the two types of crust noted(oceanic and continental or land and sea). Label the types of crust on the map. In groups conduct research to determine the differences between continental crust and oceanic crust. Create a table showing the differences	changes in temperature; Geological – Volcanoes; earthquakes; shape of continents • Causes of convection current related to the Core (Heat); Interior structure of the Earth drawn showing convection currents in the mantle; Oceanic crust and Continental crust correctly identified and labelled; at least three differences between continental crust and oceanic crust identified

					between continental crust and oceanic crust. • In groups, identify on the map showing plate margins, locations where two continental plates meet; where a continental plate meets an oceanic plate; and where two oceanic plate meet. Superimpose the map showing the plate margins on a Relief map to identify the type of landforms which are located at each plate boundary area identified. Make a list of the landform features noted. Repeat this activity for the boundaries of the Caribbean Plate. Brainstorm how plate movement of the plates at each type of boundary lead to the formation of the landform features identified. Compare theories arrived at to information gathered from textbooks and online sources. View short online videos or animations showing the formation of landform features at each plate boundary. Compile notes on each feature's formation. • In groups, create models of selected landform features identified at each plate margin. Where appropriate, recreate the activities associated with landform features identified at each plate margins. Note the activities and give an explanation of how these activities can affect people and their property.	

					• In groups, view photographs of natural events, hazards and disaster scenes. Students will determine which category each photograph represents: Natural Events; Natural Hazards; Disasters. Discuss reasons why each photograph is placed in each category. Conduct research to determine the differences between natural events; natural hazards; and disasters. Write a definition of each noting the differences. Reclassify photographs based on the findings from the research.	
	Unit 2.2 – 3 weeks	Limestone Weathering	Definition of weathering Characteristics of limestone rocks Limestone features Values of limestone landscape Geology maps	Formulate definitions for the terms weathering and erosion Describe the characteristics of limestone rocks Identify the chemical composition of limestone rocks. □ List the types of limestone rocks □ Investigate how limestone rocks are formed □ Conduct experiments to show how limestone rocks are weathered. □ Link the formation of surface and underground features to the characteristics of limestone rocks. □ Identify limestone features on geology maps □ Compare the features of the	In groups, given a rock kit containing various types of limestone rocks and magnifiers, students will examine each rock and make a list of their physical characteristics in a table. Given a list of selected types of limestone and a description of their characteristics students will classify each limestone appropriately. *Rock kit may contain common types of limestone found in Jamaica – Chalk, Coral, Coquina, Tufa In groups, given two plastic cups, sand, gravel, sugar, water, spoons, magnifying glass, students will conduct an experiment to see how sedimentary rocks are made. Sand and gravel will be poured into one cup. In the second cup	At least three characteristics of each limestone rock identified; each rock examined classified correctly Paragraph wrote with accurate information Investigation accurately carried out; the correct reason for the reaction of the limestone to the hydrochloric acid identified.

				Limestone landscape in Jamaica to that in Barbados. • Citing evidence, explain the value of limestone landscapes. • Propose reasons for the barren nature of some limestone landscapes	mix water with sugar to form a thin syrup mix. This forms the cementing agent that exists in nature in the form of dissolved minerals. Pour this mixture into the cup of sand and gravel, and pour off excess water. Allow the "rock" to dry and harden for about 2 days then using a pair of scissors remove the cup. Use a magnifying glass to observe the rock. Make notes of what is observed. Write a paragraph explaining one way in which sedimentary rocks may be formed. View online videos of the sedimentary rock formation in nature. Relate the experiment to how rock formation occurs in nature. In groups, given limestone fragments and vinegar or diluted hydrochloric acid students will apply the acid to the rock and examine the reaction using a magnifier. Write a description of the reaction and research to determine the reason for the reaction. Discuss what solution in nature can produce a similar reaction over a longer time frame. Experiment with Hydrochloric Acid $CaCO_3 + 2HCl \longrightarrow CO_2 + H_2O + Ca^{++} + 2C$ On the left side of this reaction, the mineral calcite (CaCO3) is in contact with hydrochloric acid (HCl). These react to form carbon dioxide gas (CO2), water (H2O), dissolved calcium (Ca++) and dissolved chlorine (Cl--). The carbon dioxide bubbles that will be observed	Chemical equation accurate; paragraph contains accurate information. Definition accurate; correct process justified Diagram correctly labelled; correct information on limestone feature formation written Limestone features correctly identified on maps; similarities and differences between features in Jamaica and Barbados correctly identified At least one reason for the Limestone features correctly identified on maps; similarities and

					are evidence that the reaction is taking place. When that occurs, calcite or another carbonate mineral is present. In groups, discuss how limestone may be broken down in nature. Given the individual components of the chemical reaction below, allow students to derive (unscramble) the process which would occur. Write a paragraph explaining the process. Given a set of words students will unscramble the words to arrive at definitions for the terms weathering and erosion. Discuss whether the process which limestone is broken down is erosion or weathering. Justify their decision. Review the decision arrived at by consulting information in textbooks. · Examine both surface features and underground features found in limestone landscapes Given cue cards with the name and descriptions of features label each limestone feature on a diagram After viewing PowerPoint presentation showing limestone landforms, created by the teacher or downloaded from an online source, in groups discuss ways a selected feature may have formed. Determine how the characteristics of the limestone lead to the formation of each feature. Write short paragraphs detailing the formation of each feature.	differences between features in Jamaica and Barbados correctly identified At least five items in the home which were made using limestone identified.

					In groups, given a simple Geological Map of a limestone region, compared with a Topographical Map of the same area. Identify limestone features noted. View aerial photographs or use Google Maps Software to examine surface limestone features in the Caribbean (Jamaica and Barbados). Compare the features of the Limestone landscape in Jamaica to that in Barbados. View photographs of Harrison Cave in Barbados and limestone caves in Jamaica. Compare the caves noting the similarities and differences. In groups, discuss reasons karst landscapes have sparse vegetation and limited economic activities. Explore the use of limestone in the home. Record their daily activities and the items used to carry out those activities. Determine the use of limestone to manufacture those products. Create a list. See example below.	
	Unit 2.3 – 3 weeks	Fieldwork and Investigation 2	• Preparation for fieldwork • Data collection instruments • Report writing	• Generate a series of steps to study a selected problem/topic • Design a simple data collection instrument • Use an appropriate method to determine sample size or area • Define the terms population and sample size • Use simple field work	In groups, select a topic for study and write an outline of the procedure to be followed. Discuss questions to be posed to persons in the sample population or questions to be answered in study area. Identify the population or area to be studied. • Focus should be placed on stratified • sampling • Field sketching and photography • Labelling of sketches and photographs	• Information on the problem/topic correct; All information required for the bibliography recorded • Method selected appropriate for collecting data • Methodology outlined clearly;

				techniques to gather data • Collect and record data using appropriate techniques • Analyse data collected • Produce a report of findings. • Show willingness to ask precise questions, listen attentively to answers and precisely record the answers.	and using them appropriately in report In groups students will select a problem or topic for study. Conduct research on the problem or topic and record the information. Record information to create a bibliography. Using a hand-out, text book, or online sources, students will read about a variety of simple, appropriate methods for collecting data for the problem/topic. Select the most appropriate methods and tools for collecting the data for each of the steps. Conduct research on online sources to determine the appropriate nature of the steps. Adjust the process as necessary. In groups, using the selected methods and tools write a brief methodology outlining the steps for collecting the data. Students can use appropriate software or simple material to design and make data collection tools such as the questionnaires or open quadrats. In groups, collect data using the steps outlined. Record the data on data collection sheets/field guides. Compile the data appropriately. Use the diagrams to support the description of findings. Write a short report presenting findings incorporating the statistical diagrams.	data collection tools created • Data recorded accurately in field guides. • Statistical diagrams accurately represents the data collected; Report written, • Use the data compiled to generate appropriate statistical diagrams.

UNIT:				**Students should be able to:**		
TERM THREE APRIL TO JUNE	Unit 3.1 - 2 weeks	Pollution and Disease Spread	Types of pollution Impact of pollution Disease spreads Climate change and disease spread	• Formulate a definition of the terms pollution, pollutant greenhouse gas, greenhouse effect and global warming • Categorise pollution as air, water or land pollution • Identify natural pollutants • Create a list of common anthropogenic pollutants • Discuss the effects of different types of pollution on the environment • Link air pollution to increasing atmospheric temperatures • Investigate ways of reducing pollution • Link pollution to the generation and spread of diseases. • Use models to show how diseases are spread • Assess maps showing the spread of diseases • Link changes in global climate to the spread of emerging diseases • Link global warming to increases in health issues in human beings	Students will view a series of photographs showing a variety of ways pollution occurs. From the photographs, students should identify and create a list of the pollutants and the aspect(s) of the environment is being polluted. From their observation, students will formulate a definition of the term pollution and pollutant. They will compare their definition to the definition in their textbook or online. From the photographs students will create a list of natural and man-made pollutants and discuss the visible effects of pollution on the environment. The most common pollutants should be identified from the photo gallery In groups, students should be given cue cards representing the ingredients, the causes, the effects and the solutions of either air, water or land pollution.

					Students will sort the cue cards into the groups, and present to the class discussing each classification. Greenhouse Gas Experiment **In** groups, students will conduct an experiment to determine the effects of burning on atmospheric temperatures. Each group will be given 6 matchsticks, foil paper, tape and two glass jars with lids. The matchsticks should be lit on the foil on a flat surface and covered with one glass jar. Allow the smoke from the burning match to accumulate in the jar which is then covered by the lid. Seal the lid with tape. Close the second jar and seal with tape also. Leave out in the sun for an hour. Measure the temperature of both jars. Explain what a greenhouse gas is and formulate a definition for the greenhouse effect. Compare formulated definitions with the definition in text. Suggest ways to stop

					burning to reduce the greenhouse effect should be discussed. Global Warming experiment In groups, give students the following equipment: 2 glass containers with lids, 12 cubes of ice; 6 cups of water, 2 thermometers and 1 black plastic bag. Place 6 cubes of ice and 3 cups of water in each jar. Record the temperature of the water and ice in the jar. Cover both jars with the lids. Place the plastic bag over one of the jars. This is the greenhouse jar. Place both jars in the bright sunlight outside for one hour. After the hour, measure the temperature in both jars using a thermometer. Students will record their findings and discuss which Jar has the higher temperature and why. Explain how the black plastic bag acted like extra greenhouse gases. Which Jar experienced accelerated heating? How does this relate to the Earth? Following the experiment,

					students should watch a video showing the effects of global warming on the Earth's environment (clips of The Inconvenient Truth documentary by Al Gore) may be used. Conduct research to identify diseases that may become more prevalent due to warmer atmospheric temperatures as well as disease that arise when pollution is uncontrolled. Model how some of those diseases are transmitted. Disease Spread by Contact Each student in the class is given a cup half filled with water. One student's cup will be coloured with dye. That person will represent the first person infected with a disease that is transmitted by contact. The dyed water will be shared with two persons. These two persons will each share with two other persons. This will continue until the entire class is „infected". A diagram to show the spread should be drawn and measures devised

					to prevent the disease, slow and stop its spread. · Students should view maps showing the historical spread of diseases such as the bubonic plague. They will suggest reasons the disease spread. Run online disease models which show a rate of disease spread under various conditions. Students are able to determine the variables affecting disease spread and observe how changes such as limiting travel affect spread of the disease.
	Unit 3.2 – 2 weeks	Rivers and Sustainable use of water	Major rivers in Jamaica Importance of rivers Sustainable use of water in Jamaica Influences of climate change on water resources in Jamaica	• Identify major rivers in Jamaica · Formulate a simple definition of the terms: drought, river, and groundwater. • Define the terms conservation and sustainable • Investigate the source of domestic water in the immediate community. • Outline the importance of rivers and wells. • Explain the impact of drought conditions on the physical nature of rivers and wells • Recognise the impact of drought on the local community • Design one method to harvest water for domestic or industrial use • Determine ways water may be conserved at home and school. • Suggest how water can be used in a sustainable manner	Identify rivers on a map of Jamaica projected on the wall/whiteboard. Note how rivers are represented. Note the characteristics of rivers as represented on maps. Given cue cards with the name of major rivers in Jamaica, label each of the rivers. View photographs downloaded from online sites of some of the rivers identified. Formulate a definition of the term river. Compare definition formulated with a definition in the textbook or

					on online sources. Revise definition formulated. Use textbooks or the internet to find a definition of the term groundwater. Suggest ways groundwater is accessed. Using Google Maps Software view a river located in the local area. Discuss its current use and its potential use and make presentations to the class. · Use a dictionary to find a definition of the term sustainable. In groups, discuss some of the things that they use on a daily basis that needs to be sustainable to ensure the survival of humankind. Discuss ways that the resources identified can be made sustainable in keeping with the definition derived from the dictionary Conduct research at the Water Resource Authority to identify the source of water for their community and the uses of the water. Design an

					interview schedule to interrogate a resource person from the water resource authority. Invite the resource person to make a presentation on where the local water comes from; how it is used; how much is available, and ways to conserve the amount that is left. In groups, the local community or school to determine how water is used and ways water appear to go to waste. Suggest ways water may be conserved or harvested and used. Design posters to inform the local community on how to conserve or harvest water. Research innovative ways water is being conserved or harvested globally. Present findings to the class and discuss which methods may be applied in Jamaica. In groups, conduct virtual field trips using, Google Maps software, of selected sites in Jamaica and examine the various sources of water.

					Discuss how the population may utilise the sources identified. In groups, design one method of monitoring the water levels in dams, reservoirs and wells. Determine various conservation strategies that may be implemented at different critical water levels to conserve the resource.

GUIDANCE

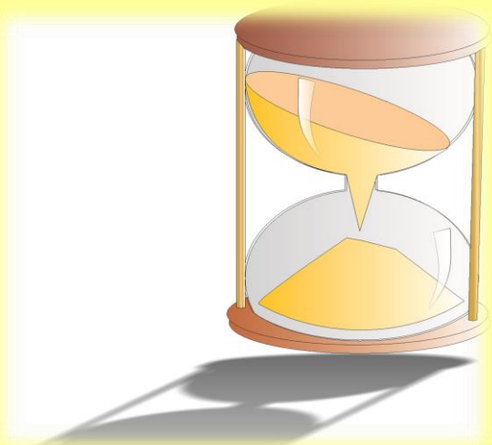
	Duration	Topic	Specific Objectives	Suggested Teaching And Learning Activities	Assessment
UNIT: Self and Interpersonal Relationship	4 weeks	**Conditions For Selecting My Career**	Students should be able to: 1. List the knowledge, skills, attitudes required for three possible careers. 2. Describe their feelings about these requirements. 3. Evaluate their own skills, knowledge, attitudes and aptitudes for three selected career options. 4. Outline a plan for a career path to one of the selected possible careers.	❖ In small groups, students brainstorm career ideas for certain personalities. Then they discuss individual suitability and personality types for specific careers. Each group reports to the class. ❖ Students in groups use information from research to prepare posters for selected careers. The charts include plans for training in relevant areas. Students prepare charts for an exhibition. ❖ Students work in pairs to identify two or more skills that they have to offer to get a job or succeed in life. ❖ Teacher places an advertisement on the board and students work in pairs to prepare themselves for the job interview. Skills can be practical, forgetting training in these fields.	❖ Evaluate the presentations for creative thinking, decision making or communication. ❖ Assess posters and charts for creative thinking or critical thinking skill. ❖ Assess response to self- awareness. ❖ Review role play for communication skills. ❖ Assess for self- awareness or communication skill. ❖ Review journal entries for self-awareness or decision making. ❖ Assess values /virtues/attitudes ❖ Assess portfolios for self- awareness and decision making skills.

Unit 2 Serving My Community	1-2 weeks	**Fostering A Spirit Of Volunteerism**	Students should be able to: Students should be able to: 1. Define the term Volunteerism. 2. Discuss the benefit of Volunteerism 3. Identify at least five (5) organizations	❖ In groups, students will brainstorm benefits of community service. ❖ Research and prepare a list of non-profit organization that students conduct community service.	❖ Assess presentation of critical thinking and communication skills
	4-5 weeks	**Table Setting & Dining Etiquette**	Students should be able to: 1. Define Etiquette 2. Accept the importance of displaying proper dining etiquette 3. Differentiate between table appointment and table accessories	❖ Students will be asked to brainstorm the dos and don'ts of table manners in pairs. ❖ Students will share the results of the class but do not offer comments or make corrections. ❖ Students will be given worksheet to complete in groups. ❖ In groups, students will be asked to brainstorm and make a list of scenarios about table etiquette	❖ Assess presentation for understanding and communication skills

			4. Correctly identify utensil verses cutlery Identify at least three **"Don'ts"** when eating soup 5. Correctly create a basic place setting for a three-course meal. 6. Display proper skills when using knife and fork 7. Correctly identify the different glasses and their uses 8. Identify at least five (5) do's and don'ts of dining etiquette. 9. Share at least four (4) qualities of a gracious	and jot them down on a note card. Shuffle the cards and have one person from the other group pick one from the stack. ❖ Take turns reading the scenarios and have the person holding the card come up with as many possibilities as he or she can think of. Then open the discussion to the rest of the group.	

			host/hostess. 10. State four (4) Qualities of a gracious guest.		

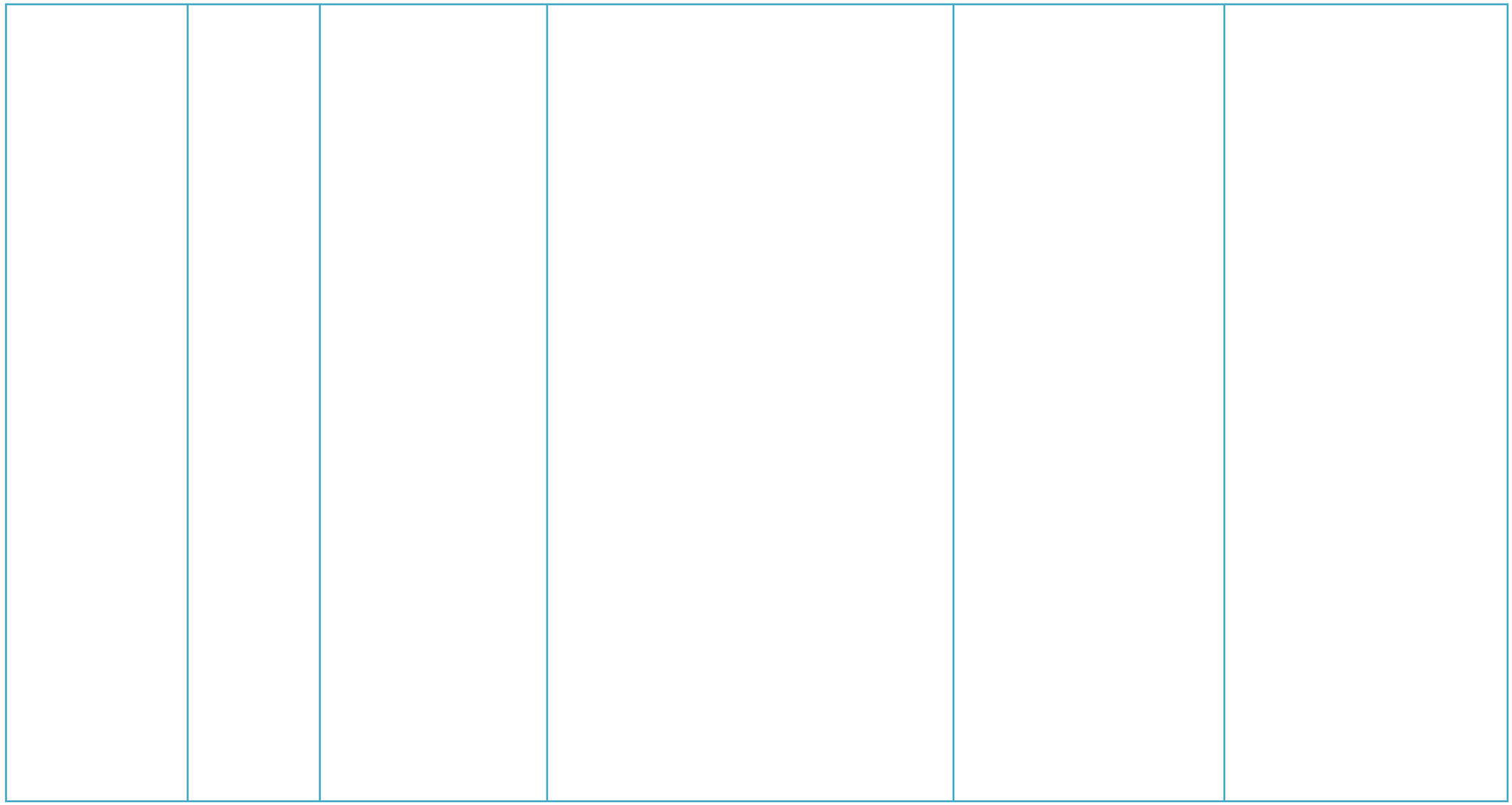
HISTORY



	DURATION 40 min/80 min = 1	UNIT TITLE	SPECIFIC OBJECTIVES	SUGGESTED TEACHING AND LEARNING ACIVITIES	ASSESSMENT

	Class				
SEMESTER			**Students should be able to:**		
TERM ONE **SEPTEMBER TO DECEMBER**	Unit 1 - 3.5 weeks	**Encounters, Conflicts and Revolutions** The Agrarian Revolution	• Define concepts /terms : revolution, agrarian, industrial, economic, political revolution, technological innovations, seed drill, crop rotation, enclosure movement, marling, medieval • Identify the characteristics of Economic Revolutions • Discuss the features of an economic revolution with specific reference to the agrarian revolution. • Explain the factors that influenced the Agrarian Revolution in Britain • Examine the changes/effects of the Agrarian Revolution on the British society and economy between 1701 and 1850	• Roleplay • Group work • Watch videos/ documentaries. • Creative presentations • Field trips • Report writing • Map work • Class presentations • Class readings • Creation of a glossary	• Essay writing • Unit tests • Group project • Worksheet completion • Artwork
	Unit 2 – 3.5 weeks	**Encounters, Conflicts and Revolutions** Industrial Revolution	**Students should be able to:** • Define the terms: revolution, agrarian, industrial, economic, political, technological innovations, seed drill, crop	• Roleplay • Group work • Watch videos/ documentaries. • Creative presentations	• Essay writing • Unit tests • Group project • Worksheet completion

			rotation, enclosure, marling, medieval • Discuss the effects of the Agrarian Revolution on the Industrial Revolution in Britain • Identify on a map of Britain, the areas where economic revolutions occurred • Evaluate the effects of the Industrial Revolution on Britain's society and economy • Discuss the Caribbean contribution to the Industrial Revolution in Britain • Assess the effects of the Industrial Revolution on the Caribbean • Show appreciation for the changes that occurred as a result of the Agrarian and Industrial Revolutions. • Show the connection between the Economic Revolution and the development of industry and agriculture in the Caribbean during the 18th and 19th centuries.	• Field trips • Report writing • Map work • Class presentations • Creation of a glossary • Class readings	• Artwork



	Unit 3 – 4 weeks	**Encounters, Conflicts and Revolutions** Political Revolutions in the Caribbean – The Haitian Revolution	**Students should be able to:** • Define the following concepts: creole, Frenchman Creole, Frenchman, African born, Creole black, colony, colonists, colonialist, petit blancs, grand blancs, monarchy, republicans, free coloured, constitution, imperialism, mulattoes • Identify Haiti and the Dominican Republic on a map of the Caribbean. • Describe the racial composition of the colony of St. Domingue before the revolution • Identify the factors which caused the revolution in St. Domingue • Analyse role of Toussaint in the execution of the Haitian Revolution. • Assess the effects of the Haitian revolution on Haiti and the wider Caribbean • Show respect for self and for others regardless of race, creed, social and economic status and national origin. • Work co-operatively in group and show concern for others	• Mapwork • Worksheet completion • Creation of pamphlets • Skit/ dramatization • Creating a documentary • Fill in the blank • Critical thinking exercises • Essay writing • Crossword puzzle • Creative presentations • Reading from handouts to create cartoons etc • Flip chart to highlight the social hierarchy in St. Domingue/ Haiti • Research and presentations on the main personalities of the Haitian Revolution	• Timeline • Fill-in-the-blank worksheets • Map work on St. Domingue • Group presentations • Creation of cartoons, poems, concept maps. • Quizzes • Puzzles • Unit Tests • Worksheet on the Haitian Revolution

		Political Revolutions in the Caribbean – The Cuban Revolution	**Students should be able to:** • Define the following concepts/ terms: revolution, imperialism. nationalism, decolonization, communism, conflict, nationalist, liberator, dictator • Identify Cuba on a map of the Caribbean • Explain the causes for the Cuban Revolution and the consequences on the country and the wider Caribbean • Examine the role of Fidel Castro as a liberator • Interpret sequence of events, time periods, chronology and trends evident in the Cuban Revolution • Discuss the divergent views relating to the Cuban Revolution • Show tolerance for change that revolutions bring	• Mapwork • Worksheet completion • Creation of pamphlets • Skit/ dramatization • Creating a documentary • Fill in the blank • Critical thinking exercises • Essay writing • Crossword puzzle • Creative presentations • Reading from handouts to create cartoons etc • Flip chart to highlight the social hierarchy in Cuba • Research and presentations on the main personalities of the Cuban Revolution • Pictorial presentations	• Timeline • Fill-in-the-blank worksheets • Map work on Cuba • Group presentations • Creation of cartoons, poems, concept maps. • Quizzes • Puzzles • Unit Tests • Worksheet on the Cuban Revolution
	Unit 4 – 3.5 weeks	**Encounters, Conflicts and Revolutions**	**Students should be able to:** • Define the following concepts: liberator, dictatorial, charismatic, nationalism, conflict,	• Map work • Worksheet completion • Creation of pamphlets • Skit/ dramatization	• Timeline • Fill-in-the-blank worksheets

	Unit 5 – 3.5 weeks	Political Revolutions in the Caribbean – The Grenadian Revolution **Encounters, Conflicts and Revolutions**	communism, elections, revolutionary, military regime, coup, coup-d'etat, dissent, military coup, communists, military regime, martial law • Identify Grenada and the United States (US) on a map of the world to determine their position to each other and the Caribbean • Discuss the factors that led to the Grenada Revolution • Identify the major personalities involved in the Grenada Revolution • Examine the concern of the US regarding the Grenadian revolution • Discuss the consequences of United States intervention in Grenada in 1983 • Assess the effects of the Grenada Revolution on Grenada and on the wider Caribbean • Value democracy, human freedom and civic responsibility **Students should be able to:** • Define the following concepts/terms: taxation, petition, peasants, delegation, martial law, riot	• Creating a documentary • Fill in the blank • Critical thinking exercises • Essay writing • Crossword puzzle • Creative presentations • Reading from handouts to create cartoons etc • Flip chart to highlight the social hierarchy in Grenada • Research and presentations on the main personalities of the Grenadian Revolution • Pictorial presentations • Worksheet completion • Creation of pamphlets • Skit/ dramatization • Creating a documentary	• Map work on Grenada • Group presentations • Creation of cartoons, poems, concept maps. • Quizzes • Puzzles • Unit Tests • Worksheet on the Grenadian Revolution • Timeline • Fill-in-the-blank worksheets

		Political Uprisings in the Caribbean – The Morant Bay Rebellion	act, ammunition, riot, rebellion, constitution, custos. • Locate Morant Bay and Stony Gut on a map of Jamaica in relation to Spanish Town. • Discuss the factors that led to the Morant Bay Rebellion • Identify the major personalities involved in the Morant Bay Rebellion • Examine the response of the authorities to the requests of the peasants in Morant Bay. • Assess the effects of the Morant Bay Rebellion on Jamaica and on the wider Caribbean. • Value democracy, human freedom and civic responsibility.	• Fill in the blank • Critical thinking exercises • Essay writing • Find a word puzzle • Creative presentations • Reading from handouts to create cartoons etc • Research and presentations on the main personalities of the Morant Bay Rebellion. • View video based on the Morant Bay Rebellion.	• Map work on Grenada • Group presentations • Creation of cartoons, poems, concept maps. • Quizzes • Puzzles • Unit Tests • Worksheet on the Morant Bay Rebellion • Letter writing • Mini field trip
	Unit 6 – 2 weeks	**Encounters, Conflicts and Revolutions**	**Students should be able to:** • Define and use correctly the terms/concepts: Atlantic World , colonialism, colony, European	• Mapwork – locate the 13 original colonies. • Worksheet completion • Creation of pamphlets	

		American War of Independence (1775-1783)	enlightenment, revolution, immigration, taxation, duties, navigation acts, protest, rebellion, mercantilism, laissez-faire, Boston Tea Party, "no taxation without representation", New England states, "Declaration of Independence", confrontation, aggression, constitution, sanctions, sovereignty, mother country, British North American Colonies, political upheavals, continental congress. • Identify North America on a world map, note its location in relation to Britain and the Caribbean. • Locate on a map of North America the thirteen British North American colonies in relation to the rest of North America, Britain and the Caribbean. • Describe the relationship between Britain and her North American. • colonies before the outbreak of the America War of Independence. • Categorize the factors that led to the American War of Independence. • Discuss the significance of the slogan "No Taxation Without Representation" • Examine the results of the American Revolution. • Assess the effects of the American War of Independence on Jamaica	• Skit/ dramatization • Film analysis • Fill in the blank • Critical thinking exercises • Essay writing • Find a word puzzle • Creative presentations • Class Readings • Discussions • Research and presentations on the main personalities of the American War of Independence • Glossary compilation. • Debate	• Fill-in-the-blank worksheets • Map work • Group presentations • Creation of poems, concept maps. • Quizzes • Puzzles • Unit Tests • Worksheet completion • Letter writing • Art work

	TERM TWO JANUARY TO APRIL Unit 7 – 3 weeks	**Encounters, Conflicts and Revolutions** World War I (1914-1918)	• Demonstrate willingness to work as a team. **Students should be able to:** • Define and use correctly the terms /concepts: conflict, mobilize, settlement, treaty, retaliate, belligerent, nationalism, rivalry, assassination, imperialism, imperialist, military, system of alliance, central powers, triple alliance, triple entente, allies, archduke Frantz Ferdinand, colony , colonisation, Serbia, submarines, mechanised war, ammunition, international, destruction, violence, Sarajevo, Bosnia, League of Nations, Versailles Peace Settlement, hostility • Identify Europe on a world map to locate the positions of the leading European nations at war for example, England, Russia, France, Germany, Austria-Hungary, Italy in relation to the rest of Europe and in relation to Jamaica. • Evaluate the factors that led to the outbreak of World War I • Examine the results of World War I • Demonstrate understanding of Jamaica's involvement in the War. • Show willingness to tolerate the views of	• Map work • Pow toon presentation on the causes • Worksheet completion • Creation of game • Skit/ dramatization • Film analysis • Fill in the blank • Critical thinking exercises • Essay writing • Find a word puzzle • Creative presentations • Class Readings • Discussions • Research and	

			others.	presentations on the main personalities of World War I • Glossary compilation. • Debate	• Fill-in-the-blank worksheets • Map work • Group presentations • Essay writing • Quizzes • Puzzles • Unit Tests • Worksheet completion • Letter writing • Art work • Creative pieces
	Unit 8 – 4 weeks	**Encounters, Conflicts and Revolutions** World War II, 1939-1945	**Students should be able to:** • Define and use words and concepts correctly : conflict, mobilize, settlement, treaty, retaliate, belligerent, nationalism, rivalry, ,imperialism, imperialist, military, system of alliance, Axis,	• Map work • Pow toon presentation on the causes	

			Allies, colony, colonisation, submarines, atomic bomb, ammunition, international, destruction, violence, League of Nations, United Nations, Versailles Peace Settlement, hostility, Nazism, holocaust, capitalism, domination, Fascism, militarism, anti-Semitic, appeasement, Mein Kampf, Lebenstraum, communism, socialism, totalitarianism • Identify Europe on a world map to locate the positions of leading European nations at war for example, Britain, France, Poland, Germany, Austria-Hungary, and Italy in relation to the rest of Europe and in relation to Jamaica. • Assess the factors that led to the out of World War 11 • Examine the results of World War 11 • Discuss Jamaica's involvement in the World War 11. • Show appreciation for Jamaica's role in World War 11	• Worksheet completion • Creation of game • Skit/ dramatization • Film analysis • Fill in the blank • Critical thinking exercises • Essay writing • Find a word puzzle • Creative presentations • Class Readings • Discussions • Research and presentations on the main personalities of World War I • Glossary compilation. • Debate • Conduct interviews	• Fill-in-the-blank worksheets • Map work • Group presentations • Essay writing • Quizzes • Puzzles • Unit Tests • Worksheet completion • Letter writing • Art work • Create a documentary/digital stories.
	TERM 3: MAY TO JUNE	**Encounters, Conflicts and Revolutions** The Rise of Nationalist Figures/ Liberators -	**Students should be able to:** • Define and use correctly the concepts/terms : nation, nationalist, nationalism, liberators, demonstrations, Universal Negro Improvement Association and African Communities League (UNIA-ACL), Rastafari, philosophy, vision, pride, radical, racism, segregation, colonial,	• Worksheet completion • Creation of pamphlets • Skit/ dramatization	• Fill-in-the-blank worksheets • Group presentations

	Unit 9 – 4 weeks	Garvey, Gandhi and Mandela	colonialism, self-reliance, persecution, exile, Black Star Line, apartheid, liberation movement , oppressed, African National Congress (ANC), non-violence, independent, nationhood, domination, independent, black consciousness • Locate Jamaica, India and South Africa on a map of the world to show their position in relation to the rest of the world. • Locate, shade and label places visited by Marcus Garvey. • Assess the philosophies of Garvey, Gandhi and Mandela. • Analyse the principles of Garvey's Universal Negro Improvement Association - African Communities league (UNIA-ACL). • Discuss Gandhi's response to British economic domination in India. • Analyse the strategies used by Mandela and the African National Congress (ANC) to end apartheid. • Evaluate the contribution of the nationalist figures/ liberators to their nation and the world. • Value the contribution of these liberators to nation building.	• Film analysis • Fill in the blank • Critical thinking exercises • Essay writing • Find a word puzzle • Creative presentations • Class Readings • Discussions • Research presentations • Glossary compilation. • Debate	• Creation of cartoons, poems, concept maps. • Quizzes • Puzzles • Unit Tests • Worksheet completion
	Unit 10 – 3 weeks	**The interconnectivity between humankind and the past** Federation in the British Caribbean	**Students should be able to:** • Define and use correctly concepts/terms: federation, constitution, Montego Bay conference, Standing Closer Association, Committee , Federal Parliament, senate, crown colony, self-government, regional,	• Worksheet completion • Creation of pamphlets • Skit/ dramatization	• Fill-in-the-blank worksheets • Group presentations • Creation of cartoons,

			custom union, referendum, opposition, election, freedom of movement, integration. • Identify on a map of the Caribbean the countries which were members of the West Indies Federation. • Name the outstanding personalities associated with the West Indies Federation, Grantley Adams, Norman Manley, Alexander Bustamante, Eric Williams, Oliver Stanley, Sir Hubert Rance. • Assess the contributions of outstanding personalities named above to the West Indies Federation. • Analyse the factors that led to establishment of the West Indies Federation. • Discuss the reasons for the failure of the British West Indies Federation. • Evaluate the consequences of the breakdown of the West Indies Federation. • Demonstrate willingness to work cooperatively. • Value the importance of unity and cooperation among Caribbean people. • Develop an appreciation for the foundation laid by the West Indies Federation for regional integration.	• Film analysis • Fill in the blank • Critical thinking exercises • Essay writing • Find a word puzzle • Creative presentations • Class Readings • Discussions • Research presentations • Glossary compilation. • Debate • Create profile of key personalities.	poems, concept maps. • Quizzes • Puzzles • Unit Tests • Worksheet completion
		Interconnectivity between the past and the present	**Students should be able to:**		

	Unit 11 – 3 weeks	Political Independence in the British Caribbean (1960's – 1980's)	• Define and use correctly the concepts/terms: independence, constitution, nationalists, nationalism, colonies, colonial rule, anti-colonial, dependent territories, parliament, bi-cameral parliament, self-government, crown colony, self-rule, decolonization, Moyne Commission, Universal Adult Suffrage, imperial powers, legislature, executive council, cabinet, representative, Westminster Model, constitutional change , Anglophone Caribbean, Mother Country, premier, chief minister. • Identify on a map of the Caribbean the British Caribbean countries. • Analyse the circumstances which led to independence in the British Caribbean. • Identify outstanding personalities who were associated with independence in the British Caribbean countries. • Assess the role played by persons who emerged as leading political figures in the respective countries of the British Caribbean. • Evaluate the impact of independence on the Jamaican society. • Appreciate the contribution of key personalities associated with Independence in the British Caribbean. • Arrange in chronological order the dates when countries in the British Caribbean received their independence.	• Worksheet completion • Creation of pamphlets • Skit/ dramatization • Film analysis • Fill in the blank • Critical thinking exercises • Essay writing • Find a word puzzle • Creative presentations • Class Readings • Discussions • Research presentations • Glossary compilation. • Debate • Create profile of key personalities.	• Fill-in-the-blank worksheets • Group presentations • Creation of cartoons, poems, concept maps. • Quizzes • Puzzles • Unit Tests • Worksheet completion

	Unit 12 – 3 weeks	**Interconnectivity between the past and the present**			
	Unit 3 – 13 weeks	**CIVICS** The Community	**Students should be able to:** • Define the term civics, community, institutions, social groups, socialization, culture, co-operation, society, • List the types of communities – home, school, church, country, region, global • Evaluate the role/ functions of the main communities – home, school, and church. • Explain why the home is considered to	• Research from textbook • Videos and pictures on the types of communities	• Model of a family tree (**Industrial Arts and Art**) • Poems (**English Language**) • Cartoons (**Visual Arts /English Language**) • Songs (**Music**)

			be the first community • Describe the characteristics of each family structure • Identify the different types of social groups – formal and informal • Classify different types of groups according to their functions, characteristics and composition. • Appreciate their role as social beings and recognize the need to cooperate and respect each other.		
		Citizenship **Government**	**Students should be able to:** • Define the term citizenship, citizen, alien, democracy, rights, responsibilities • List at least three ways a person can become a citizen of a country. • Identify at least six rights of a citizen • Classify responsibilities according to legal and voluntary responsibilities • Discuss responsibilities to self – good health practices; to community ; to country • Appreciate that with rights comes responsibilities **Students should be able to** • Define the terms government, fiscal duty, budget, taxation, voting, the electoral system • Identify the various types pf	• Group video journal on Acts of Kindness in and around the school • Dramatization on rights and responsibilities of a citizen • Guided questions on the rights and responsibilities of a citizen • ICT (laptop, projector etc)	• Assimilation of the Acts of Kindness • Poster on the rights and responsibilities of citizens

			governmental systems • Illustrate by way of a time line the historical pattern of the Jamaican government • Describe the functions/role of the government • Outline the electoral process • Identify factors influencing voter behaviour in Jamaica • Describe the fiscal duties of the Government	• Newspaper clippings • Dramatization • Concept Mapping • Research from Textbook and Internet • Assimilation of the voting process	• Concept Map of the branches of government and their relationship • Group Presentations • Worksheets on the branches and functions of government • The creation of a budget • Assimilation of voting process

RELIGIOUS EDUCATION

	DURATION 40 min/80 min = 1 Class	UNIT TITLE	TOPICS	SPECIFIC OBJECTIVES
SEMESTER				Students should be able to:
ONE	**3 weeks**	**Unit 1**	**<u>Theme</u>: <u>Stewardship</u>** **Topic: The Nature and Purpose of Stewardship** ▪ Definition of concepts ▪ *Nature and scope of personal stewardship.* - Use of personal human resources, including talent, adaptability, leadership	•Define and use correctly the concepts listed in the unit's key vocabulary section. •Explain how some beliefs and teachings shared by different religions are used as the basis for personal and corporate stewardship. •Explore the nature and purpose of personal and corporate stewardship, and explain the

			ability, experience, relational/interpersonal and job skills ▪ *Nature and scope of corporate stewardship.* - Use and care of natural and corporately owned resources, e.g., time, money (taxes, donations/corporate funds) maintenance of property/buildings maintenance of law and order, use and care of the natural environment. ▪ *Implications of personal stewardship*, i.e., the exercise of personal stewardship in the context of the wider community. ▪ *The teaching and practice of personal and corporate stewardship in different religions*, e.g.: Christianity, Hinduism, Judaism, Islam. - Local and international people of faith (e.g., Gandhi, Fr. Richard Ho Lung, Bishop Desmond Tutu): the areas of need they have tried to address.	relationship between them. • Examine how personal and corporate stewardship are taught and expressed in different religions. •Evaluate how insights and motivations gained from religious faith and experience contribute to personal and corporate stewardship. • Outline some of the benefits of good stewardship and the natural consequences of poor stewardship. • Gather information which may be used in making decisions about the use of time, talent and other resources. • Evaluate ways in which by their treatment of ethical issues religious people show they are accountable to self, Creator and the human community of which they are a part. • Identify and distinguish between areas of individual and corporate responsibility as members of a shared humanity. . Examine people of faith who have demonstrated good stewardship. . Express the capacity for doing good for the betterment of society without any thought of personal gain. • Identify and discuss the views of local and international modern-day people of faith re social issues and concerns/corporate

				stewardship. • Identify and discuss the views of local and international modern-day people of faith re social issues and concerns/corporate stewardship.
Two	**3 weeks**	**Unit Two** **Theme: Stewardship**	**Topic: Personal Stewardship** **<u>Sub-Topic:</u> Some Stewardship Issues And Concerns As Addressed By Major Religions** **Preparing for Life:** **CONTENT** ▪ *Introduction –* *Growing into responsible behaviour:* How different religious groups bring up children Review of coming of age ceremonies/rites (where these exist) in: Christianity, Judaism, Islam, Hinduism, Other religious groups in the community. c) Expectations in each religion for responsible adult behaviour (as symbolized by these rites.) ▪ *Issues and concerns:* *<u>Relationships</u>* *<u>Related issues</u>* - Human and Sexual Relations including	•Define and use correctly the concepts listed. •Explain how some beliefs and teachings shared by different religions are used as the basis for personal and corporate stewardship •Describe and begin to understand religious and other responses to ultimate and ethical questions •Review practices that mark coming of age in different religious groups. •Examine child-rearing practices in different religious groups. •Discuss and outline what is expected of young persons who are recognised as adults by different religious groups. •Identify and distinguish between natural and contrived consequences of personal actions. •Define how some forms of religious expression are used differently by individuals and communities •Evaluate how insights and motivations gained from religious faith and experience contribute to personal and corporate stewardship. •Show by their behaviour that they recognize the need to show compassion towards persons who are caught in the grip of social evils. •Make informed responses to questions of meaning and purpose in the light of their learning.

			Singleness/ "singlehood", abortion/use of contraceptives, Peer pressure, Prostitution And abuse (spousal, child, verbal, emotional/psychological, sexual, physical, incest) Divorce and Marriage including arranged and Mixed marriages (of race or religion)	•Identify relevant facts and describe some of the important and personal issues and problems facing young adults and other persons today. •Identify ways that good relationships may be fostered at home, family, school and the wider community. •Evaluate ways in which, by their treatment of ethical issues, religious people show that they are accountable to self, Creator and the human community of which they are part. • Recognize the dangers of playing upon the emotions of others for one's personal advantage. • Express the capacity for doing good for the betterment of society and without any thought of personal gain. • Explore the effects of religion on the formation of one's attitudes, values and beliefs. • Show by their behaviour that they know the importance of respecting persons in authority. • Make moral judgements (good/bad, right/wrong) based on common values held by different religious groups regarding relationships. • Develop a positive attitude to self and others, and show a willingness to critically evaluate themselves on an ongoing basis. • Draw conclusions about the influence of sacred writings on the responses of religious people to personal, social and ethical issues in everyday life. • Investigate the role that world religions play in preserving in society an appreciation for the sacredness of life.

				• Prioritise/make decisions based on an understanding of the nature of responsible adult behaviour, and follow up responsible choices with appropriate actions. • Be willing to assert themselves in maintaining their rights and to recognize that with every right comes responsibility. • Show by their behaviour that they realize the importance of the proper rearing of children and young people.
Term Two	**8 weeks**	**Unit 3** **THEME Stewardship**	**Topic: Corporate Stewardship –** **Sub-topic: More issues and concerns as addressed by major religious groups** ▪ The technology of birth - Cloning - Test tube babies - Artificial insemination - Surrogate mothers - Fertility drugs - Actual stage at which human life begins - Infanticide - Sexually transmitted diseases - Street children/homeless persons/vagrants ▪ Medical care for the poor ▪ Adoption - How the process is handled - How the child is treated	• Identify and discuss principles to be learned from the beliefs and practices of modern local and international people of faith • Be open and exploratory in the sharing of views and beliefs concerning stated concepts • Describe and begin to understand religious and other responses to ultimate and ethical questions. • Explain the nature of and give opposing arguments for some controversial issues involved in medical ethics • Define and use correctly the concepts listed in the key vocabulary section. • Outline/delineate the specific views of some world religions and other religious groups concerning the vulnerable within the society and the natural world. • Focus on key statements from religious groups on values and ethical codes of conduct. • Be able to avoid simplistic, stereotyped and biased comments with regard to issues being examined. • Become critically aware of their own feelings

			- Possible effects ▪ Abandoned children/children that are given away ▪ Persons with disabilities ▪ Euthanasia mercy killing) ▪ Organ transplants (including donation of limbs, bodies or organs for medical research) Vivisection and animal rights	and judgements and those of others. • Develop a mature sense of personal worth and value and of the worth and value of others. • Make informed responses to questions of meaning and purpose in the light of their learning. • Be willing to suggest and act upon practical solutions to problems involved in issues being discussed. • Formulate and refute arguments relating to societal stewardship issues. • Identify and suggest possible solutions to some of the social problems existing in the local and national community. • Empathize with persons in difficult situations or situations of need. • Be challenged to think through the values that have either a positive or negative influence on their own lifestyles and those of others. • Develop respect for people who hold beliefs and views which differ from their own. • Evaluate ways in which, by their treatment of ethical issues, religious people show that they are accountable to self, Creator and the human community of which they are a part. • Research information about organizations which cater to the needs of vulnerable persons, and explore ways in which the work of these organizations can be assisted and expanded. • Examine and draw conclusions concerning what different religious groups consider to be right and wrong re concepts and content listed. • State/identify and outline the basic contents of

				laws (re concepts/content listed) which have been influenced by major religions and religious groups • Explore and explain the consequences of the actions of individuals on the lives of others in the local, national and global community.
Term Two	**4 weeks**	**Unit 4** **THEME: Stewardship**	**Topic: Corporate Stewardship (cont'd)** **Sub-Topic: Other Issues and Concerns As Addressed by Some Religious Groups** **CONTENT/CONCEPTS** Ethical Issues and Society: - Ageism - Racism - Sexism - Marginalization - Wealth and poverty a) consequences of unequal distribution of wealth b) religious groups and solutions they offer - Stewardship of opportunity - Work, wealth, leisure, proper use of time - Honesty and dishonesty Crime, violence and punishment/capital	Objectives: • Explain how some beliefs and teachings shared by different religions are used as the basis for personal and corporate stewardship. • Define and use correctly the concepts listed • Explore and delineate what different religious groups think constitutes proper use of working time. • Describe and begin to understand religious and other responses to ultimate and ethical questions. • Outline and discuss different religious views concerning one's rights repayment for work done. • Assess the effectiveness of different conflict resolution strategies used by different religious groups and the society. • Understand, develop and express personal views on issues and problems discussed, and express thoughts, feelings, experiences, values, attitudes and beliefs which are held by others • Evaluate how insights and motivations gained from religious faith and experience contribute to personal and corporate stewardship. •identify and explore feelings which evolve out of issues being discussed. • Evaluate their own standpoints concerning a

				variety of Religious Education related issues. • Recognize bias, exaggeration, prejudice and stereotyping as they discuss a variety of religious and social issues. • Make informed responses to questions of meaning and purpose in the light of their learning. • Evaluate ways in which, by their treatment of ethical issues, religious people show that they are accountable to self, Creator and the human community of which they are part. • Express the capacity for doing good for the betterment of others, and without any thought of personal gain/reward or recognition. • Discuss the place and function of voluntary service within society. • Discuss and list some of the values which, if practised, would help or hinder the development of society. • Explore some religious beliefs held about stated social evils and identify some practical solutions offered or used by religious groups to counteract these evils. • Consciously monitor personal behaviour to avoid discrediting one's country in the international community • Draw conclusions about the influence of sacred writings on the responses of religious people to personal, social and ethical issues in everyday life. • Investigate the role that world religions play in preserving in society an appreciation for the sacredness of life.

				• Identify some causes and effects of legal/illegal migration • Examine the expectations that lead to migration, and the effects of this upon different levels of society. • Recognize and be able to make the best use of opportunities for advancement without being selfish, inconsiderate or breaking the law while so doing. • Compare the attitudes of local and returning residents towards one another and discuss ways in which religious beliefs and practices can foster mutual understanding.
Term	**Two weeks**	**Unit: 5** **THEME: Stewardship**	**Topic: Corporate Stewardship** **Sub-topic: Caring for the Natural World** ▪ What is the natural world? ▪ Local and global issues and concerns relating to the natural world. ▪ What pollutes air and water, and why. ▪ Waste disposal: garbage, sewage, nuclear waste, radiation, smog, industrial waste, deforestation, soil erosion, etc. ▪ Caring for protected and/or endangered species ▪ What some world religions say about caring for the environment. ▪ General summary of principles/teachings common to world religions re personal and corporate stewardship.	• Define and use correctly the concepts listed in the vocabulary section of this unit. • Compile and summarize basic teachings/principles common to different religious groups concerning caring for the natural world. • Examine and compare the teachings and practices concerning the care of the environment which are adhered to by major religions and indigenous religious groups in Jamaica. • Identify situations within the environment, the remedy of which requires corporate stewardship. • Develop and maintain a sense of wonder and curiosity about the world. • Explore the relationship between human beings and the environment, and how religious beliefs affect their attitudes towards the environment. • Become sensitive to and knowledgeable about local and global issues and concerns relating to

				the natural world. • Give reasons for neglect or abuse/misuse of the environment and its resources. • Explain why religious groups emphasize caring for the environment. • Suggest ways in which they may actively become engaged in corporate activities to care for their immediate environment. • Outline some benefits of caring for the environment. • Evaluate their own standpoints regarding concepts and content explored relating to the care of the natural world. • Develop the ability to use effective morally and socially acceptable methods to call attention to areas of neglect within the local and national environment. • Explore and describe a variety of feelings which lie at the heart of environmental abuse. • Suggest a variety of ways in which a positive attitude to the environment may be/is being encouraged by the local, national and global community. • Develop a sense of personal and corporate ownership of, pride in, appreciation of and desire to care for the physical environment. • Examine ways in which one's family, friends or the media, etc. may influence one's attitude to and daily decisions regarding the care of the natural world. • Be willing to engage individually and corporately in caring for their immediate surroundings, as well as the wider environment.

Term 3	**2 weeks**	**Unit: 6** **THEME: Stewardship**	**Topic: Some Conclusions About Stewardship** **CONTENT** ▪ Definition of Concepts ▪ Review of the general summary made of principles/teachings/practices common to world religions re personal and corporate stewardship. ▪ Summary of personal impressions formed, views developed, decisions taken re: A. Use of personal human resources including: adaptability, use of talent, leadership ability, experience, relational/ interpersonal and job skills. B. Use and care of natural and corporately owned resources, (e.g., time, money, taxes, donations, corporate funds etc.) Maintenance of buildings/of law and order, use and care of the natural environment. C. Exercise of personal stewardship in the context of the wider community.	• Explain how some beliefs and teachings shared by different religions are used as the basis for personal and corporate stewardship. • Review the key teachings and practices concerning personal and corporate stewardship which are adhered to by religious groups under study. • Describe and begin to understand religious and other responses to ultimate and ethical questions. • Recognize the times when there is wisdom in giving in to others' wishes, demands, points of view or expectations – and do so graciously. • Evaluate how insights and motivations gained from religious faith and experience contribute to personal and corporate stewardship. • Develop the ability to express personal beliefs and feelings through music, visual arts, drama and creative writing. • Continue to develop sensitivity to local and global issues and concerns relating to personal and corporate stewardship. • Evaluate their own standpoints regarding the concepts and content explored about personal and corporate stewardship. • Make informed responses to questions of meaning and purpose in the light of their learning. • Examine how people make moral decisions, and how daily life is influenced by teachings, sacred texts, religious leaders, etc. • Readily identify social and moral evils as these evils are expressed in their own daily

				experiences. • Develop a strong sense of responsibility, accountability and moral scrupulousness regarding their own welfare, that of others and of the environment. • Evaluate ways in which, by their treatment of ethical issues, religious people show that they are accountable to self, Creator and the human community of which they are part. • Express the capacity for doing good for the betterment of society and without any thought of personal gain. • Explore and outline what students, as well as believers within religious groups, consider to be of ultimate value. • Evaluate their present stage of moral, spiritual, social, physical and emotional development, and thereby evaluate their implementation of worthwhile, achievable short and long-term goals. • Develop the ability to persist against great odds in order to achieve worthwhile goals. • Develop a mature sense of personal worth and value. • Develop the ability to apply facts and principles learned to specific situations. • Draw conclusions about the influence of sacred writings on the responses of religious people to personal, social and ethical issues in everyday life. • Investigate the role that world religions play in preserving in society an appreciation for the

				sacredness of life.

MATHEMATICS

The purpose of the Mathematics curriculum is to enable students to become:

1. ***Critical thinkers as well as users and creators of Mathematics***
2. ***Fluent in the language of mathematics***
3. ***Successful lifelong learners***

4. Confident and productive individuals.
5. *Proud citizens of Jamaica.*

Unit	Topic	Duration	Specific Objectives Students should be able to:	Suggested Teaching and Learning Activities	Assessment
	Algebra- Indices		1. State the meaning of a^m, where *a* and *m* are rational numbers. 2. Simplify expressions using the laws of indices. 3. Evaluate expressions a^m and $b^m \times a^m$ 4. Write numbers less than, greater than and equal to 10 in standard form.	• Practice questions from the prescribed text	• Classwork • Graded homework
	GEOMETRY – QUADRILATERALS		1. Distinguish quadrilaterals by considering lines of symmetry. 2. Properties of diagonals of each type of quadrilateral.	• Presentation	• Graded presentation

	Arithmetic- Statistics and Probability .		1. Design and conduct simple experiments to collect data. 2. Determine simple probabilities and draw appropriate conclusions. 3. Use fraction and percentages to describe probability 4. Interpret a probability given as a fraction or percentage. 5. Construction histogram and frequency polygon using ungrouped data.	Students will count cars of various colours and record the data in table. This data will be used to find the average using the three different.methods (mean, mode and median). Survey at the class level about social media that they prefer.	• Graded Classwork • Graded Homework
	Statistics		Define, explain and construct: Bar charts Pie charts Line graphs	• Project	• Grade projects
	Algebra **Sets**		1. Sorting sets from data given in verbal form (2 or 3) 2. Illustrating information using Venn diagrams 3. Obtaining information from Venn diagrams involving 3 or more sets 3. Solve problems involving not more than 4 sets (including the universal set)	• Practice questions from the prescribed text	• Graded Classwork • Graded Homework
	Geometry - Geometric Constructions		1. Construct angles of 90° and 60° 2. Bisect angles and hence construct 30°, 45°, 135°, 15° etc 3. Construct triangles using rulers and compasses (Introduction)	• Practice questions from the prescribed text	• Graded Classwork • Graded Homework • Test

	Algebra - **Simplification**		1. Simplify expressions by grouping 2. Simplify expressions involving brackets (the distributive law) 3. Simplify algebraic Fractions	• Practice questions from the prescribed text	• Graded Classwork • Graded Homework
	Algebra – **Linear Equations**		1. Solve simple equations 2. Solve equations involving the distributive law 3. Solve fractional equations	• Practice questions from the prescribed text	• Graded Classwork • Graded Homework
	Geometry -Congruent And Similar Triangles		1. Prove that two triangles are congruent triangles 2. Similar triangles a. Prove that triangles are similar b. Solve problems involving similar triangles	• Practice questions from the prescribed text	• Graded Classwork • Graded Homework
	Arithmetic - **Measurement**		1. The circle a. Area of a sector of a circle b. Length of an arc c. Perimeter of a sector d. Area of segment of a circle 2. Area a. Derive and use the formulae for area of parallelogram and trapezium b. Calculate the area of composite shapes c. Solve problems involving the surface area of solids 3. Volume a. Find the volume of prisms b. Find the volume of composite shapes	• Worksheets	• Graded Classwork • Graded Homework • Test

TERM THREE **APRIL TO JUNE**	**Algebra – Factorization**		1. Factorize simple expressions 2. Factorize using HCF **3.** Factorize by grouping	• Practice questions from the prescribed text	• Graded classwork
	Algebra – Formulae		1. Transpose simple formulae (C= 2πr. V= u +at, etc.)	• Practice questions from the prescribed text	• Graded classwork • Graded homework
	Explain Geometry - Pythagras' Theorem		1. Prove Pythagoras' Theorem 2. Use Pythagoras' Theorem to solve problems involving right angled triangles	• Worksheet	• Graded classwork • Graded homework
	Consumer Arithmetic		1. Define, explain and calculate: Sales tax Discount Commission Foreign exchange Hire purchase	• Project	• Grade projects
	Algebra **Simultaneous Equations**		1. Solve simultaneous equations by substitution 2. Solve simultaneous equations by elimination 3. Solve problems that result in simultaneous equations	• Practice questions from the prescribed text	• Graded classwork • Graded homework
	Geometry **Trigonometric Ratios**		1. Identify the three sides of a right-angled triangle in relation to a given angle. 2. Determine the sine, cosine and tangent of acute angles in right-angled triangles. 3. Use the sine, cosine or tangent ratios in the solution of right angled-triangles	• Practice questions from the prescribed text	• Graded classwork • Graded homework

	Algebra **Inequalities**		1. Write inequalities to illustrate story problems 2. Solve simple inequations using the number line and algebra 3. Illustrate inequalities with two variables on the coordinate plane	• Practice questions from the prescribed text	• Graded classwork • Graded homework • Test
	Geometry **Transformations**		1. Translate any shape using a column vector T = $\begin{pmatrix} x \\ y \end{pmatrix}$ (Review) 2. Reflect any shape in a given line (Review) 3. Locate the image of an object under an enlargement 4. State the relationship between an object and its image after an enlargement.	• Worksheet	• Graded classwork • Graded homework
	Geometry - Graphs		1. Write a quadratic mapping as a set of ordered pairs 2. Plot the ordered pairs on a graph 3. Interpret the points of intersection of the curve with the axes	• Worksheet	• Graded classwork • Graded homework • Test

	TOPIC		ASSESSMENT

FRENCH

UNIT:1	Duration	Topic	Students should be able to:		
TERM ONE		Voyager dans son pays	○ Use correct expressions to talk about likes and dislikes about a particular travel destination ○ Describe the different modes of transport ○ Demonstrate an understanding of instructions for directions given in the target language. ○ Distinguish clearly between the use of the passé composé and Imperfect Tense. ○ Talk about different activities in which students participate during their vacation ○ Describe a local place of interest utilizing the appropriate vocabulary and impersonal expressions. ○ Apply correct phrases and questions when making travel arrangements Describe - the necessary steps/stages in relation to use of public transport	❖ Create an itinerary for a trip to another part of the island (Use a verb structure like *Nous allons à*) ❖ Conduct research in your class, in French, to find out what is the most popular mode of transport among students using the impersonal expressions. ❖ Create an informational booklet advertising your own transportation company ❖ Listen to a short extract about students going on a field trip and respond to questions based on the extract. Play the role of bus driver giving an outline of the day's activities. Correctly prepare and present to the class an announcement that the driver/ tour guide on a bus would make when he is starting a trip. (Use of *Nous / on*) Compare means of transport by saying which is faster based on pictures that are given by the teacher. Accurately prepare a brochure which describes one type of transportation listing all the attractive features and inviting the class to choose this medium. Stand in front of the class and recount what took place on the day of the trip. Including	Accurate use of adjectives in describing destinations and giving directions Oral and written presentations demonstrating the proper use of the *passé composé* and imperfect tense Working in pairs, create and present a dialogue of a scene that took place on one of their trips utilizing the correct form of the passé compose and imperfect tenses, both orally and written.

				activities starting from the planning and preparation to the end of the trip in the target language. The routine that they go through on the day of the trip should also be recounted. Sing the song *Lola adore voyager* and also identify the verbs used. There may also be blanks which the students will fill in.	
UNIT:2		**Voyager à l'etranger---travelling overseas**	Students should be able to:		
			○ Correctly use the simple past tense (passé composé) in discussing recent events ○ Correctly use irregular verbs in discussing recent events Accurately complete travel documents using appropriate vocabulary	Take turns telling the class at least two things that they did over the weekend or the day before as a means of recapping the *passé composé*. Work in groups to research and present in INGLISH information on places of interest in Francophone countries. Watch a news report on a local personality speaking of his/her holiday visit to a Francophone country and answer questions. Students will try to identify the new irregular verbs being introduced and answer other questions pertaining to the report. Participate in a competition to create a song or poem using the irregular verbs. In small	The presentation on *Mes meilleures vacances* should reflect correct use of the regular and irregular verbs in the passé composé Employ correct grammar and appropriate vocabulary to effectively communicate at the airport. Accurately complete immigration forms and travel documents with required information. Demonstrate their

				groups, students will use the first person singular form of the verb and put it to their favourite tune. This will be presented to the class. Participate in the “verb race” game to practise the irregular verbs. Divide the Class into two or four groups. One member of each group will stand at the back of the class. The teacher will call out an irregular verb with the subject and the students will race to write the correct form of the verb on the board. The first person to write it correctly scores a point for his/her team. Create a simple story based on various pictures using linking expressions and other expressions of time while employing the passé compose of both regular and irregular verbs. Participate in a class discussion, in FRENCH, about their visit to a Francophone country. Students will respond to questions such as *Où êtes-vous allés?/Where did you go? Qu'as-tu fait?/Qu’est-ce que tu as fait?/What did you do?* Write an article for a well-known magazine which gives a report on a trip that a famous Jamaican made to a Francophone country. Complete a questionnaire from a travel agency which requires the students to indicate what they liked and did not like about their holiday	understanding of the written and spoken language by correctly responding to questions based on the texts.

				experience. Create a PowerPoint presentation to the class about *Mes meilleures vacances/My best vacation* in which they discuss a trip the students made to a Francophone country. Students will also express their opinions on the trip. Students, in pairs, will help each other do a checklist of the things they have and what they don't have for a trip. They will employ the correct direct object pronoun in giving the response. For e.g. *tu as ton maillot de bain? Do you have your bathsuit? Oui, je l'ai/Yes I do* or *Non, je ne l'ai pas/No I do not*. In pairs, each student will receive a sheet with items that they have. The partner's sheet will have a few items that are different. Student A will ask his/her partner if he/she has a particular item, and Student B will respond based on whether or not that item is on the sheet. The student will also have to indicate what he/she "has to do" to complete the preparation. Watch and listen to an animated video or presentation about persons discussing their preparations for their upcoming trip and respond appropriately by identifying things the person needs for the trip. Read a dialogue which deals with persons interacting with officials at different sections of the airport. Students, in groups, will use the	

				dialogue as a guide to creating their own *A l'aéroport/At the airport* dialogue then act it out in class. Fill out an immigration form/travel related documents Complete multiple choice exercise by selecting the correct form of the verb in the appropriate tense, present or passé composé.	
UNIT: 1			**Students should be able to:**		
TERM TWO		Quand j'etais jeune	○ Use target language in discussions relating to different aspects of their life from childhood to adolescence ○ Differentiate between the uses of the imperfect tense and the passé composé ○ create dialogues and stories dealing with habits in the past ○ respond appropriately to questions based on a variety of written texts dealing with habits or events in the past	Examine a passage or short story and pick out verbs/underline verbs in the imperfect tense Deduce usage of verbs in the imperfect tense Practise forming the imperfect tense of regular and irregular verbs Tell the students to write sentences of their own relating their experiences when they were younger Play the Chinese Telephone (*Téléphone arabe*) game to tell each other one activity that they used to do as a younger child Build a story of their past experiences based on what they used to do aided by their teacher and peers utilizing positive and negative constructions	Demonstrate the ability to recount their early years by employing sentences constructed in the appropriate past tense; negative as well as positive expressions and set phrases. Show ability to differentiate between use of the imperfect tense /passé composé when completing a piece of written document

				View picture slides with celebrations of historical events and describe in the target language how each event was celebrated paying special attention to cultural practices. Complete a passage in which they select the correct tense from those tenses that have already been studied In groups of four, discuss their growing- up years using the target language and tell what they now do that they never used to do before In pairs write a short guided dialogue which will entail the exchange of information about each other's habitual past actions in French Read aloud excerpts containing the imperfect tense and the passé composé Listen to a variety of stimuli and select the correct responses Plan and present a fashion show featuring clothes from the '60s to the '90s and have an announcer tell the era and describe what persons used to wear for a particular event/occasion based on what the model is wearing. Record the presentation. Debate the moot: *La société d'hier et d'aujourd'hui / Life then and now* using simple sentences composed in the appropriate tenses and comparative expressions as required in the moot	Exhibit listening skill by responding correctly to specific stimuli related to past experiences

UNIT 2:		Mes projets pour l'avenir—My future plans	Students should be able to:		
TERM TWO **JANUARY TO APRIL**			○ Use suitable language expressions to describe future actions and events. ○ Communicate effectively with classmates telling them about their plans for the future ○ Answer orally and in writing questions in the future tense ○ Select and use appropriate forms of the future tense in describing future events ○ Respond appropriately to questions by selecting the appropriate tense.	Participate in a conversation to talk about things they are going to do using the *"je vais"* construction as a means of recapping the near future construction. Teacher will ask questions such as *"Qu'allez-vous faire ce soir ?/Qu'est-ce que vous allez faire ce soir ?", "Que vas-tu faire à l'école demain?/Qu'est-ce que tu vas faire ce soit ?"*. Students will respond using the same construction, e.g. *"Je vais regarder la télé", "Je vais étudier les mathématiques."* Complete short sentences using the correct form of the verb indicated in the future tense. Watch a short video clip with persons talking about their plans for their birthday or their New Year's resolutions. Students will then engage in a discussion about what they understood, in English. Create an e-invitation in which they will invite at least two persons from their class to their birthday celebration. Contribute a comment to a passage which deals with a young person's concerns about his/her future. Each student will write at least one comment to say what the future holds for the person. When completed, this should then be read in class. In groups, create a poster	Written material should reflect the correct use of both regular and irregular verbs in the future tense. Demonstrate their ability to correctly respond to both written and spoken questions Demonstrate an ability to ask and respond to questions in the future tense

				which deals with what persons have to do to achieve their future goals e.g. *"Vous devrez avoir la foi", "Vous devrez étudier."* In groups, students will read concerns from a schoolmate and write a brief paragraph, in response to the concern, to be placed in the school's magazine in the "*Comment sera mon avenir?" What will my future be like* section? Read a comic strip in which the future tense is used in wondering. Discuss the use of the tense in this context. They will then complete a comic strip on wondering about the future based on the cues given. Read a passage entitled "*Mes prochaines vacances* " or read/listen to a variety of material and answer open-ended questions based on these. Create a dialogue with a classmate talking about their life in the future or an invitation to a celebration or other event. Contribute to the online forum *Comment sera le monde en 2050?*	
Unit 1		La Communication personnelle—personal communication	**Students should be able to:**		
TERM 3 MAY TO			○ Ask and answer questions about personal communications devices. ○ Compare and express opinions about	From a video, listen to the names of communication devices while viewing pictures of them. In pairs, ask each other how to spell	

JULY			personal communications devices. Discuss the advantages and disadvantages of personal communication devices	these devices. Practise asking about each item using *"Tu as…"* Choose three items of communication and find two persons who each have one by asking *"Tu as… + name of object"* Practise questions specific to particular devices, e.g. capabilities of the device, phone number. Find out each other's opinions about different devices using *Tu aimes + name of the object?* and *Que penses-tu de + name of the object?* Express positive and negative opinions using common phrases *(see glossary).* Work in pairs to practice giving their opinions on various devices. Research various communications devices paying attention to the expressions used in French. State the advantages and disadvantages of a particular device in their opinion, using the construction *"Je n'aime pas…. parce que…"* Make comparisons using *mieux que/better than; plus grande que/bigger than; plus utile que/more useful than.* Role play in groups of four a sales event in which they try to persuade others to buy their favourite communication device. Record their dramatizations, listen to taped roleplay and	

				write down what they hear. Work in groups of four to identify and correct the mistakes made. Redo the roleplay with the corrected script and videotape it.	
Unit 2			**Students should be able to:**		
TERM 3 MAY TO JULY		**LesMedis—The media**	○ Use appropriate target language expressions to express opinions on social and other media. ○ Advance arguments about the use and misuse of communication media Communicate using relevant structures to express what is being done with particular media	Participate in a class discussion in which they list different media forms, and present their views in ENGLISH on the role of media. Act out a scenario, in groups, in which a reporter seeks the opinion of the general public in FRENCH on different media. Write sentence slogans in FRENCH to support their perspectives. Use these to create a montage for class display. Participate in a field trip to an electronics store. Identify in FRENCH the different forms of media seen. Create a compilation of descriptions of persons engaged in various activities with media devices. Create an advertisement for one communication device observed in the store. Translate the display language of a commonly used social media platform into French. Create a glossary of the terms used to represent common tasks e.g. *mot de passe/password, téléchargez/download.* Work in pairs to explain to the class in FRENCH how to use a chosen social media platform.	Demonstrate the ability to express appropriately opinions about different forms of communication in the target language. Communicate preferences effectively using the target language. Extract information in the target language from different media sources using available devices Use appropriate structures to describe events and media devices

				Respond appropriately to simple questions about different media e.g *Tu aimes le cinéma?* Talk about media content that they have seen e.g. describing actors, actresses and favourite scenes of movies. Play a game in which descriptions of communication media are written on slips of paper and read by different students, with the rest of the class trying to guess what they are.	

SPANISH

	DURATION 40 min/80 min = 1 Class	TOPIC	SPECIFIC OBJECTIVES	SUGGESTED TEACHING AND LEARNING ACTIVITIES	ASSESSMENT
UNIT:			Students should be able to:		
Term One		**-Los modos de transporte /** Modes of transport	Identify the means of transport. Eg. el coche, el avión, bicicleta, motocicleta, el tren, el metro Say what their favourite means of transport is and why using comparatives in Spanish.	The teacher needs to teach the modes of transport with the relevant prepositions. Recognition of means of transport based on drawings and photographs. Irregular comparatives (mejor…)	Recognition of means of transport based on drawings and photographs. Questions and answers
		Comparar los modos de transport /Comparing means of transport	say what their favourite means of transport is and why using comparatives in Spanish.	Irregular comparatives (mejor…)	Questions and answers

		Describir un lugar de interés en Jamaica Describing a place of interest in Jamaica	choose a place of interest (e.g Dunn's River Falls) and will describe it in Spanish.	Tourist brochures in Spanish can be used and can be obtained from Jamaica Tourist Board	Students will design their own brochure for potential tourists.
		Direcciones/ Directions	use a map to give directions in Spanish. Multimedia Projector Laptop	Students could use the map of a town they do not know eg. Kingston, Old Harbour, Montego Bay Ocho Rios, etc The teacher could use google maps and project town on board.	Guessing where they are based on given directions
		Itinerario/Itinerary	create an itinerary in Spanish.	Teacher may need to show an itinerary in English	Presentations given by students
		Contar de un viaje/ Giving an account of a trip	use the ***pretérito*** to give an account of a	The teacher will guide the students in using the right forms of the past tense.	Students will write a paragraph about a fictitious trip based on a map in

					Spanish.
		Listening to the news.	listen to a short news item/past events selected by the teacher.	The teacher can create their own materials or use authentic materials that are available. Laptop and speakers	Questions and answers that seek to assess the students' comprehension of the content.
		Oct 20 Heroes Day Consolidation	Oct 21 Mid-term Consolidation		
		Oct 20 Heroes Day Consolidation			
		La preparación para **viajar al extranjero** Preparing for travelling abroad	role play different characters such as the receptionist at a hotel receiving	The teacher may use other scenarios. Pictures/photos/drawings of items to be used when travelling	Students will make a to-do list for travelling including reserving a call for reservation

		En el aeropuerto /at the airport - airport announcements	go through the tour of an airport and will listen to airport announcements.	Students will not be required to know every single word in the announcements. They need to be provided with key words such as vuelo, puerta etc.	Students will be required to fill in key terms in a passage or dialogue.
		Going through the airport on the return	role-play situations at the customs and will fill in an immigration form in Spanish	The teacher may take students to an actual airport to do this activity.	Students will fill in immigration/customs forms
		El Viaje/ The trip	Gives an account of a trip abroad.	Laptop and Multimedia projector Students may research places in Spanish speaking countries. The emphasis for the presentations will be the use of the past tense.	Students will be assessed on their PowerPoint presentations in Spanish.
		Filling in a form from a travel agency	Say what they liked and disliked about a trip.	The evaluation information will be based on the trip as described in the PowerPoint.	Students will be required to fill in an Evaluation form

					about the trip.
		Exams	Exams		
		Letter-writing	Write a friendly letter	Laptop and multimedia projector The teacher will remind students of the use of **Tú** and **Usted**.	Students will write a letter to a person whom he/she met while abroad telling the person about how they enjoyed/did not enjoy the trip
		Project work	Creates the outlines for their project during the class.	Students will research places in a Spanish Speaking country. Maps	Students (in groups) will complete a written project on a Spanish Speaking country they visited or researched.
UNIT:			Students should be able to:		
TERM TWO **FEBRUARY TO MARCH**					
		1.Cuando era Joven / When I was young			

		Description			
		Habitual Actions	say what they used to do	The focus is on habitual actions.	Students will write about their habitual actions when they were younger
		Describing a place	compare their previous school with the current one	This activity can be done orally or in writing.	Students will create on cartridge paper with antonyms which they use to describe their past and present schools employing the use of the imperfect and present tenses.
		Perfect vs. Imperfect	Identify the verbs in the imperfect and perfect tenses and give the reasons for their uses.	The teacher should use interesting texts.	Students will identify correctly the tenses
		Story Writing		The teacher should select interesting stimuli.	Students will use correctly the tenses for story writing. Students will be required to write a story based on given

					stimuli.
		Mystery Case	present a skit in which they try to solve a mystery. Eg. Murder, robbery etc.	The teacher will assist with vocabulary.	Peer evaluation
	Feb 16-20	**CONSOLIDATION ASH WEDNESDAY (MID TERM BREAK)**			
		Mis Planes para el futuro	use the immediate future	The teacher should revise immediate future and use it as a launch pad for the future tense.	Questions and Answers
		Future tense Plans for Future (Regular Verbs)	identify the future tense.	The focus is on regular verbs only.	Questions and Answers (Interviews)
		Future Tense (plans for the future) Irregular Verbs	say what subjects they will select and what will be in the future.	Though the focus is on the irregular, students may be allowed to use the regular future tense in their answers.	Students will write a brief paragraph about their future plans.

		Future Tense Regular and Irregular Verbs	talk about their next vacation	Students should be encouraged to include the immediate future, regular and irregular future in their dialogues.	Students will create a dialogue in which they talk about their future plans
		What will happen next?	guess what will happen next A video will be played and paused at intervals or a series of photographs will be displayed and appropriate pauses will be made to allow students to guess the outcome.	The teacher needs to be familiar with the material so that the pauses can be done appropriately. Laptop, multi-media projector, photographs to be projected by the document camera.	Questions and Answers
	Mar 30 – April 3	Holy Week April 2 Holy Thursday holidays begin			
UNIT:			Students should be able to:		
TERM TWO **APRIL TO JUNE**					

		1 Comunicación personal/ Personal Communication Expressing likes/dislikes and preferences and giving reasons	Identify various communication devices (telephones, ipad, ipod, tablets etc.)	Pictures of the devices. (Students can bring their own devices if permitted) Preferir Gustar Odiar Students can bring their own devices if permitted.	Peer group testing
		Expressing Opinions	Use of the internet to find sites selling communication devices for students select devices and give their opinions about them.	The teacher should group students will make a presentation on one device selected from within the group giving a reason for their choice.	In group of threes students

		Comparación Comparing Devices (Use of Comparatives)	compare devices using the comparatives	The teacher needs to ensure that comparatives are used.	Students will be asked to compare two devices in front of the class
		Using Direct Object Pronouns	In responding questions about the devices students will be required to use the direct object pronouns. i.e. ¿Para qué se usa el teléfono? Lo uso para hacer llamadas.	Ensure that students use appropriate object pronouns to replace nouns (lo, la, los, las)	Questions and Answers
			May 22 and 25 Midterm break/Labour Day		
		Los Medios de comunicaciones (expressing views on media)	Express views on media	Class discussion on media **Expresiones para utilizar** (No) Estoy de acuerdo En mi opinión Pienso que/Creo Prensa (periódicos, revistas, etc) Electrónica	Research on different media types and prepare posters on communication devices e.g. Radio, television, newspapers, magazines, etc.

				Brainstorming on the different types of media is to be done in English	
		Interacting with e-mails	create an e-mail account in the target language to be exposed to the vocabulary used in e-mail accounts in Spanish. (eg. www.es.yahoo.com) And exchange e-mail with classmates in the target language.	Create account in target	E-mails should be written to include the use of the present continuous. Students will be required to cc their mail to the teacher.
			Exams		

PHYSICAL EDUCATION

INTRODUCTION

The aim of the Physical Education Curriculum is to allow students to:

1. Develop a knowledge and understanding of Physical Education and Sport.
2. appreciate that participation will enhance their physical fitness and well-being along with a variety of motor skills
3. Learn that activities contribute to the goals of education, enhance self-direction, and self-esteem.
4. Learn that Physical Education concepts and skills will expose them to a wide variety of careers which will prepare them to be confident and productive individuals get together and have fun
5. Keep fit and healthy.
6. Learn physical and technical skills.
7. Cooperate and communicate with others.

Unit	Duration	Topic/ Content	Specific Objectives	Suggested Teaching And Learning Activities	Assessment
Term 1 (September – December	2 weeks 3 weeks 2 weeks 2 weeks	**NETBALL** • Theory- Roles, functions and hierarchy of the governing bodies in Netball. • The effect of physical activity on the different systems of the body. Revision of: • Passes • Landing and Pivoting • Marking & dodging • Defending • Shooting Passing • Zigzag • Straight line Dodging	Students should be able to: • State and discuss the roles and functions and hierarchy of the governing bodies for Netball/ (local, and international). • State the effects of physical activity on the different systems of the body. • Perform appropriate activities for warm-up and cool-down, specific to netball. . • Refine ball handling, shooting, marking and dodging and footwork skills learned. • Demonstrate an understanding of rules in a game of netball. • Demonstrate positive personal and social behaviours that emphasize fair play. • Demonstrate an understanding of passing using the straight line and zig-zag technique. Demonstrate an understanding of the ‘single feint dodge’ as opposed to the ‘double feint dodge’ • Perform umpiring task by identifying infringements relating to netball and the penalties to be awarded.	Research Search for information Create scrapbook Pass, catch, shoot, feint Dodge, mark Sprint forward, run in a zigzag manner, Play game, analyze, observe, apply rules Footwork, change of direction speed	Research Project Home Work Correct execution of skills

	4 weeks	• Single feint • Double feint Game/Umpiring	• Demonstrate strategies using a combination of attacking and defending skills with special emphasis on dodging and marking in game situations.	Officiate, observe Record, Report	Observation of the rules during game' Accurately apply combined Netball skills in game situation, while observing rules Display accurate decision-making strategies Demonstrate fair play in game situation
Term 2 January - March	2 weeks 3 weeks 4 weeks	**TRACK AND FIELD** Theory- Roles, functions of the governing bodies in Track and Field Relays • 4 x 100m • 4 x 400m	**Students should be able to:** • State and discuss the roles and functions of the governing bodies for Track and Field/ (local, and international). • Discuss and interpret rules governing specific sport • Employ correct biomechanics when running and utilize visual change using the down sweep method while remaining in assigned lanes. • Revise and perform the technique of the down sweep method of change. • Demonstrate proper coordination of arms and	Research Search for information Prepare individual and/or group projects on roles and functions of governing bodies for Track and Field. Jump, Takeoff, Landing Run, Jump, Land Accelerate	Research Project Home Work Demonstrate, correct landing technique Correct execution of take-off. Correct execution of running technique. Observing rules. Demonstrate the correct

		• Check marks • Long jump • High Jump • Discus • Shot	legs while running in a straight, in lanes, around the curve and crossing over at the appropriate time • Identify and demonstrate the phases suitable for the execution of the long jump, high jump. • Refine techniques in long jump (float, hang and hitch kick) and high jump (Fosbury Flop) • Develop good coordination in executing the different throws. (shot, discus) • Choose to exercise for enjoyment and training benefits • Use knowledge of skills to perform effectively in competitions.	Run-up, Take-off, Flight Landing Throw Putt Communication	run-up and take-off Clear bar using the basic technique. Proper execution of the throwing technique
	2 weeks 11 weeks	**FOOTBALL (BOYS)** • Roles, function and hierarchy of the governing bodies of football. • Social impact of football on the community/society • Marking • Attacking plays • Defensive plays	**Students should be able to:** • State and discuss the roles and functions and hierarchy of the governing bodies for football and the social impact it has on the community/society. • Explain the different systems/formation • Demonstrate tactical skills for individual or team play while defending or attacking such as: marking, creating scoring opportunities		Scrapbook created shows factual information about sports personalities. Effectively create space for play Apply attacking and defending skills

		• Tactical plays • Shooting • Game	• Demonstrate an understanding of the principles of defense and attack. • Define and explain the role and responsibilities of each player on the team. • Perform effectively one on one strategy in both defending and attacking	Research Search for information Create scrapbook. Debate Shoot Pass Dribble, Control, Movement turn, Coordination Mark Cover/defend Square, Head ball	Ability to create space and provide cover Ability to channel attacker from goal Ability to use width and penetration to attack Correctly execute football skills in game situations Research Project Home Work
Term 3 **April -**	2 weeks 9 weeks	**VOLLEYBALL** • Roles and functions of the governing bodies of Volleyball. • Structure of Volleyball competitions held at the local level. . • Volley • The dig pass • Block	**Students should be able to:** • State and discuss the roles and functions of the governing bodies for Volleyball and the structure of competitions held at the local level. • Perform appropriate activities for warm-up and cool-down specific to volleyball • Refine technique of overhead (volley), forearm passing, serve reception, overhead	Search for information Analyze findings Block	Demonstrate appropriate blocking skills Correctly demonstrate spike approach Correctly execute the spike and block of the ball Appropriate use of the overhand and underhand passing skills

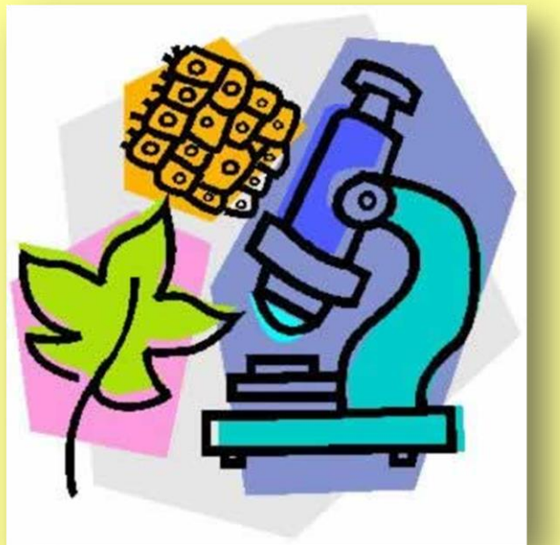
June		• Spike • The dig pass • Service • Rules • Game	set, blocking, spiking. • Utilize offensive and defensive strategies in a game. • Assess skills with self and in peers while getting feedback from the teacher.	Jump Footwork Spike Arm swing, take off Overhead set, forearm pass Serve	Research Project Home Work
	2 weeks 9 weeks	**BASKETBALL** • Roles and functions of the governing bodies of basketball. • Structure of competitions held at the local level. • One hand push pass • One hand bounce pass • Footwork • Set shot • Jump shot • Lay-up shot • Dribbling • Game	**Students should be able to:** • List, explain and analyse the roles and functions of the governing bodies in basketball. • Research the basic equipment used and rules governing Basketball. • List and explain the roles of the playing positions in Basketball. • Recap, refine and apply basketball skills learned. • Execute one-hand push pass and one-hand bounce pass and show hand target to receive the pass. • Use the correct technique to catch a ball. • Perform shots from free throw line and sides of the key. • Perform different types of cross-over dribble. • Execute the defensive stance and slide while playing defense on and off the ball. • Work harmoniously in groups, demonstrate	Search for information electronically, manually Develop teamwork	Accurately discuss tactical and technical aspects of skills Execute the crossover dribble techniques Correctly execute defensive stance and slide Observe correct footwork movement Correctly execute the shooting techniques Demonstrate correct body position when taking shot Effectively combine skills

			mastery of learnt skills and apply strategies under match conditions. • Explain referee's calls for infringements and penalties to be awarded**.**	Report, Discuss, Communicate Bounce Jump Shoot Defensive stance Lay up Dribble Front dribble Spin crossover Between the leg dribble Behind the back dribble Search for information Analyse findings	in a competitive and/or fun situation Identify violations Correct execution of skills in a competitive situation. Research Project Home Work Oral/written reports give clear evidence of concepts studied in research.
	2 weeks 3 weeks	**CRICKET (BOYS)** • Roles and functions of the governing bodies of Cricket. • Structure of competitions held at the local level. • Bowling Off spin Leg spin Medium pace	**Students should be able to:** • List, explain and analyse the roles and functions of the governing bodies in cricket. • Research and present on the structure of cricket in Jamaica. • Show an appreciation for the rules governing the game and the sporting tradition in which it is played. • Execute proficient level of skills in wicket keeping techniques. • Demonstrate running between the wickets while keeping the ball in view.	Grip Stance/footwork Back lift Bats wing Balance Timing of stroke Follow through Run up Gather/coil	Competently perform the cut shot Correctly demonstrate the pull shot. Correctly demonstrate bowling action Demonstrate appropriate fielding technique

	3 weeks 4 weeks 2 weeks	• Batting Preparation for the shot /Alignment Stance/balance Completion of the shot • Fielding Attack Pick up Balance Body alignment • Positioning • Laws • Game **THEORY** Sports-related injuries and basic first aid treatment procedure.	• Effectively execute the grounding/sliding of the bat towards and behind the crease while taking a run. • Execute the correct technique in the cross-batted shot/strokes e.g. (cut and pull) • Use stock/length and line delivery and maintain line outside off stump. • Demonstrate the use of the fielding positions (close in and out), stationary and while moving. **Students should be able to:** Identify the types and causes of sports injuries and general preventative measures. Administer basic first aid procedure when applicable .	Delivery stride Delivery Attack the ball Pick-up and balance Body –alignment Throw Long and short barrier Chase Retrieve Apply the laws Think Analyze Communicate Listen Record information Create organize cooperate	Correctly apply appropriate skill in game situation Demonstrate knowledge of laws of the game Participate actively in discussion Record information Present adequately equipped first aid kit Participate actively in physical activity

	3 weeks	**HEALTH SAFETY AND WELLBEING** • Benefits of physical activities • Movements/dance; Gymnastics	• Identify benefits of participating in physical activities. • Demonstrate a variety of movements • Balance using different body parts while moving alone or with a partner. • Individually and in groups perform movement sequences containing basic gymnastic activities. • Create dances based on themes such as sports.	Create jingles to show benefits of participating in physical activities •Create dances based on themes such as sports.	

Biology



TOPIC/CONTENT	DURATION	OBJECTIVES: STUDENTS SHOULD BE ABLE TO:	TEACHING/LEARNING ACTIVITIES	ASSESSMENT
TERM 1				
UNIT TITLE: TRANSPORT ACROSS CELLS				
Biological Drawings (Revision and Concretization)	1 Week	Discuss and dictate rules for drawing. Identify the most significant features of a specimen and make an accurate representation.	The students will draw on prior knowledge to: develop their observation skills, recall guidelines for drawing from specimen and magnification calculation by producing biological drawings of the external view of the plant storage organ: Carrot/Ginger (Classwork)	**Drawing specimen: Plant storage organs: Transverse view of Tomato (Homework)**
Osmosis and Diffusion	4 Weeks	define the processes of osmosis and diffusion investigate the process of osmosis explain the process of osmosis compare osmosis with diffusion prepare biological materials for investigation demonstrate interest in the outcomes of investigations make predictions using scientific knowledge and understanding	<u>Week 1 (Engagement)</u> Carry out practical activities depicting movement of substances (eg. Spraying perfume; lettuce leaf in water) Construct a table to show the similarities and differences between osmosis and diffusion. Share information with the class and through a teacher led discussion, complete a combined table of these similarities and differences Introduce the terms hypotonic, hypertonic and isotonic	**Formulate and present scientific print/oral reports of the effects of salt water and tap water on a deshelled egg to demonstrate accurate recording of observations (Homework- Week 1).** **Assessment of practical lab skills and lab reports for practical exercises.** **Graded worksheets on**

			<u>Weeks 2-3 (Explore, Explain and Elaborate)</u> ➢ **In groups, cut a medium Irish potato in halves. Carve out a hollow in both halves of the potato. (Be careful when using sharp instruments). Cut the base of each potato cup so that it can stand on its own. Stand each potato cup in a separate dish containing the same volume of water. Place one teaspoon of brown sugar or salt into the hollow of one potato cup. Leave both potato cups for 30 minutes. Observe and record what happens (Classwork)** ➢ **Share their observations with the class and suggest reasons for the changes. Guided by the teacher, relate their observations to the concept of osmosis and develop explanations of the process observed.** ➢ **Video presentations to**	**osmosis and diffusion.**

			demonstrate animations of diffusion and osmosis (https://www.youtube.com/watch?v=PRi6uHDKeW4)	

Week 4 **UNIT TEST 1: OSMOSIS AND DIFFUSION**
UNIT TITLE: TRANSPORT IN HUMANS

1. Human Circulatory System	5 Weeks	➢ Investigate the need for a transport system in multicellular organisms. ➢ Identify the types of substances which need to be transported in animals. ➢ Identify the main components of blood and state their basic functions. ➢ Relate the structure of arteries, veins and capillaries to their functions. ➢ Annotate a simple diagram of the human heart. ➢ Relate the basic structure of the human heart to its function. ➢ Trace the flow of blood through the heart and around the body. ➢ Use scientific vocabulary and/to articulate concepts clearly and precisely	**Week 5** ➢ View a projected image or chart online of human blood and, aided by the teacher, identify red and white blood cells and platelets. ➢ In groups, make models of red and white blood cells and platelets by cutting shapes from cardboard, paper, plastic, foam, modelling clay/plasticine or rubber. ➢ Discuss the function of each component with the aid of video presentation (https://www.youtube.com/watch?v=qrE6Y0Se8bw or https://www.youtube.com/watch?v=VSVYgivfs9c/) **Weeks 6-7** ➢ Discuss the structure and function of the different blood vessels and complete a compassion table to illustrate the information. ➢ In groups, research, plan and design models of the different types of blood vessels, using available materials. Plans should include	➢ Models of the Blood Vessels (Homework- Week 6) ➢ Graded worksheets on the circulatory system.

			constraints. Present designs to the class, explaining how they will represent the blood vessels. Then, refine designs based on feedback. Construct the model using the modified designs.	
			<u>Weeks 8-9</u> ➢ Annotate simple diagrams of the human heart [external features and longitudinal section (L/S)]. ➢ Virtually examine with the aid of the smart board the external and internal features of a heart and with reference to the diagrams identify the main parts. ➢ Draw out a map of the human circulatory system on the school field or classroom floor. Label each area on the map. Take turns representing the blood, walk around the system explaining what happens at each point.	

			Guided by the teacher, infer that the human circulatory system is a double circulation, explain why it is given this name and discuss the advantages of such a circulation. ➢ Demonstrate and explain what happens to the flow of blood if the rate of the heart beat increases.	
Week 10 **UNIT TEST 2: TRANSPORT IN HUMANS**				
UNIT TITLE: TRANSPORT IN PLANTS				
2. Transport in Plant (Translocation and Transpiration)	3 Weeks	➢ Identify the substances that are transported in plants ➢ Describe how roots are adapted for taking in water ➢ Identify the location of transport tissues in a dicotyledonous plant stem and root sections. ➢ Describe the basic functions of the xylem and phloem. ➢ Investigate the movement of water	**Weeks 11-13** ➢ In groups, examine pictures of roots with root hairs, e.g. germinating peas or beans, or other sources such as videos and animations, and brainstorm to identify the role of the root hairs. Share ideas with the class. ➢ View projected images of the transverse section through a stem	➢ Quiz and worksheets ➢ Drawing skills (of Vascular Bundles) ➢ Lab Reports from practical exercise

		from the soil to the leaves	and root showing the vascular bundles and compare with the sections cut from the plant. Describe the movement of substances from the soil through the plant and present their observations in a variety of ways. ➢ Examine and discuss the structural features of the xylem and phloem vessels guided by the teacher. ➢ Investigate the uptake of dye/coloured ink by celery by placing the freshly cut plant stalks into a beaker/glass containing the dye/ink solution. Leave for 1-2 hours and observe what happen. ➢ Examine and discuss details associated with the Transpiration Pull and Translocation with the aid of video presentations (https://www.youtube.com/watch?v=7rWHT02n47k and https://www.youtube.com/watch?v=QXdujo4PZ7c and https://www.youtube.com/watch?v=KHUrQ6qKpxQ)	
Week 14				

UNIT TEST: TRANSPORT IN PLANTS				
TERM 2				
UNIT TITLE: SENSITIVITY AND COORDINATION				
3. The Nervous System	5 Weeks	➢ Deduce the importance of responding to changes in the environment ➢ State that each sense organ contains sensory / receptor cells that detect a specific type of stimulus. ➢ State that the brain and spinal cord comprise the Central Nervous System (CNS) which coordinates the body's responses. ➢ Name the main parts of the human brain and state their basic functions. ➢ Differentiate between voluntary and involuntary /reflex actions. ➢ Explain the importance of reflex actions using examples.	**<u>Week 1-3</u>** ➢ View a video on the human nervous system. Participate in teacher led discussion to highlight the importance of responding to changes in the environment and identify the role the nervous system plays. ➢ In groups, review and make model of the sense organs and formulate definitions for stimulus, receptor, response and effector. Share definitions with the class in a teacher led discussion. Construct a table to list each sense organ, the stimulus which it detects and its corresponding function. ➢ View diagram / picture / video or	➢ Models of the brain, sense organs (Homework-Week 1) ➢ Online Quiz ➢ Practical activity reports on reaction time and reflex actions (Classwork-Week 4)

			examine a model of the human brain then label the main parts on a teacher prepared hand out. Construct a table to show the parts identified and their functions.	
			<u>Weeks 4-5</u> ➢ Participate in a teacher-led discussion then formulate a definition of involuntary /reflex actions. In groups, generate and sort a list of actions into voluntary and involuntary. As a class, share their ideas from the lists and identify the benefits that can be derived from the involuntary/reflex actions cited. ➢ Work in pairs to demonstrate some reflex actions identified in the previous activity (e.g. conditioned reflex- squeeze/release or hand pat, blinking, knee jerk, pupil reflex etc.) then in a teacher led discussion, identify the common features involved in the reflex actions and the role each plays. ➢ Work in groups to compare their	

			reaction times. Hold ruler with fore finger and thumb. On a signal given by group leader, release ruler and try to grasp it with fingers before it hits the surface. Record the time taken to catch the ruler. Perform the activity two more times. Tabulate the results and calculate the average reaction time. Repeat the activity to determine the average reaction time for each member of the group. Plot a suitable graph (reaction time/ students) using the group results.	
SEMESTER 1 EXAMINATION				
TERM 3				
4. The Endocrine System	2 Weeks	➢ Describe the endocrine system as consisting of ductless glands that respond to internal stimuli by producing hormones. ➢ Identify selected endocrine glands, their location, the hormones they	➢ In groups create power point presentation/poster or charts of the human endocrine system showing selected glands (pituitary, adrenal, pancreas, thyroid, ovaries, and testes) and give a 15-minute oral	➢ Teacher and peer assessment of the oral presentations and supporting

		produce and their importance in maintaining the internal environment (homeostasis) ➢ Compare the nervous system with the endocrine system ➢ Use appropriate scientific language to describe features of the nervous and endocrine systems	presentation. Students will record the information in a suitable table. Annotate a blank diagram prepared by the teacher. ➢ Explore homeostasis in a teacher guided discussion supported by video presentations (https://www.youtube.com/watch?v=Iz0Q9nTZCw4) ➢ In groups, compare the nervous and endocrine systems and share findings with the class. Summarise the information presented.	posters/charts. ➢
UNIT TITLE: EMBRYO DEVELOPMENT AND BIRTH CONTROL				
7 Sexual Reproduction	3 Weeks	➢ State that the fertilised egg (zygote) undergoes repeated cell divisions to produce an embryo which becomes implanted in the uterus ➢ Identify key structures in a pregnant uterus (placenta, amniotic sac, amniotic fluid, umbilical cord and uterine wall) and state their basic functions in the growth and development of the human	➢ View chart/ model/ video (online or offline) showing the development of the human embryo in the uterus. ➢ Annotate a given diagram of the longitudinal section of the pregnant uterus. ➢ Sequence prepared statements about the human life cycle (e.g. on cell specialization, fertilization, embryo development, birth etc.).	➢ Assessment by teacher and peers of charts/ posters/ movies created. ➢ Online quiz

		embryo/foetus. ➢ Describe how the embryo obtains nutrients and oxygen and eliminates waste. ➢ Describe the effects of negative maternal behaviour during pregnancy on the development of the embryo/foetus. ➢ Explain the importance of prenatal care during pregnancy.	➢ In groups, create an album or a booklet to show the stages of growth of the foetus using pictures collected from the internet/posters/magazines (Use suitable software e.g., presentation or moviemaking) to create digital version of the album. ➢ In groups, research (online/offline) the effects of negative maternal behaviours (e.g., diet, drugs, alcohol and smoking) on the developing embryo/foetus. Discuss information and prepare related questions that could be used during a panel discussion/press conference. ➢ In groups, design and make a movie/digital story to persuade pregnant mothers to give up negative behaviours during pregnancy. Display video on the classroom forum/ online Classroom wall or page. ➢ Role play exercise on prenatal care	
8 Birth Control	2 weeks	➢ Critique methods of birth control. ➢ Assess the importance of	➢ Participate in a discussion led by a nurse/ doctor/teacher on the importance of family planning, the	➢ Assessment of display charts ➢ Online quiz

		family planning ➢ Evaluate problems associated with teenage pregnancy Show respect for each other's views	effects of teenage pregnancy and the different methods of birth control/contraception. ➢ In groups, collect photos of different contraceptives and create a display chart. ➢ Debate on the moot "Be it resolved that condoms should be distributed in secondary schools."	
UNIT TEST: ENDOCRINE SYSTEM; EMBRYO DEVELOPMENT AND BIRTH CONTROL				
END OF YEAR EXAMINATION				

CHEMISTRY

INTRODUCTION

This guide is meant to be used as a tool to help grade nine parents and students keep abreast of the required learning outcomes for the academic year. The guide outlines topic, objectives, suggestive activities and resources that are used at this level. It is by no means exhaustive, but simply representative of the syllabus for this level.

The grade nine syllabus is geared towards harnessing the natural curiosity and enthusiasm of the 9^{th} Grader. The syllabus presents Science in a fun way while developing the requisite skills and attitude which Science demands.

UNIT	DURATION	TOPIC	OBJECTIVES STUDENTS SHOULD BE ABLE TO:	TEACHING AND LEARNING STRATEGIES STUDENTS WILL:	ASSESSMENT
UNIT 1 Working Like a Scientist 3					
1.1	2 weeks	Experimenting	1) Identify and state problems 2) Formulate hypotheses 3) Plan and design experiments (fair tests) to solve specific problems.	1) Create a flow diagram outlining the steps involved in the scientific method and then share and discuss their diagrams with the class. As a class discuss each step of the scientific method. 2) As a class, examine samples of scenarios, problem statements generated from them, and experiments which were carried out to solve the specific problems. Discuss the importance of controlling variables in the design and execution of fair tests. 3) In groups, generate a problem statement from a scenario provided by the teacher. Develop a hypothesis then plan and design an experiment to test the hypothesis. 4) Carry out the experiment then present a report to class in an exhibition format. 5) In groups, identify and specify a problem in their school/community. Discuss and formulate a hypothesis, then plan and design an investigation to test their hypothesis. Collect and record their observations/data and write a report on the investigation. Share and discuss findings and ideas with the class.	Flow diagram contains the steps of the scientific method in correct sequence Variables required for fair tests identified Problem statement acceptable, Expected results linked to hypothesis Experimental plan is plausible and follows expected steps Suitable methods indicated for presenting data Display meets agreed criteria Report reflects the scientific method, Problem statement acceptable Hypothesis acceptable Investigation reflects fair-testing Data/observations appropriately recorded, Explanations/conclusions supported by data

1.2	2 Weeks	Quantities, Units & Graphs	1) Formulate a definition for the term ‘physical quantity’ 2) Recall five fundamental quantities and their base units 3) Recognise a unit as a standard measure of a quantity 4) Recognise that all other quantities and units are derived from funda-mental quantities and base units 5) Use prefixes: micro, milli, centi, deci, kilo, and mega appropriately and be able to carry out relevant calculations 6) Recognise that quantities have effects on each other and that a graph is a pictorial representation of their relationship 7) Plot graphs according to accepted standards 8) Calculate gradients of graphs and determine their units 9) Create and interpret distance-time and velocity-time graphs for uniform motion	1) In groups, be given a glass of water and various measuring instruments (e.g. balance, ruler, thermometer, measuring cylinder, micrometer, vernier caliper, stopwatch). Use the instruments to measure and record the values of as many things as is possible regarding water. List some things about the water that could not be measured (e.g. colour, smell, shape). State, giving reasons, which of the set of things (measured/not measureable) are physical quantities. Suggest a simple working definition of the term “physical quantity”. Share and discuss their definitions with class. (A physical quantity is a measurable characteristic of anything.) 2) Recall five fundamental quantities of measurement and their base units. In groups, use a ruler to measure the length and width of a sheet of paper and calculate its surface area. Use a stopwatch to measure the time it takes for a small piece of tissue to fall from a height of 2 m to the ground and calculate speed (distance ÷ time). Identify the fundamental quantities in the calculation of the area and the speed. Share information with class. (Teacher should use the ensuing discussions to introduce the term derived quantity.) Answer the following question: 1. How are derived quantities formed? 2. How are the units of derived quantities found? 3) In groups, have each group member measure and record the length across a desk top using their hand-span. Compare the measurements obtained. Use rulers (each group member) to measure the length across the desk and compare results. Discuss the differences in measurement obtained from using hand-span and the ruler and suggest advantages of using the ruler. Discuss the need for	Measuring instruments used correctly Acceptable justifications made Acceptable definition of physical quantity Fundamental units correctly identified Correct calculations made Scenario illustrates the need for standard measurement

				standardization in measurement and present a scenario to illustrate the need. Share information with class. 4) Determine the number of millimetre graduations on a metre rule and answer the following questions: 1. What fraction of a metre is a millimetre? 2. What does the prefix milli mean? Repeat the exercise to determine the meaning of centi and deci Complete the following for each of the prefixes: Micro = 1/000 milli; micro = Kilo = 100,000 centi; kilo = Mega = 10,000,000 deci; mega = Measure the mass of a stone in grams then convert the mass to (a) milligrams (b) kilograms. Read the frequency of a radio station on a radio dial then convert the frequency to (a) Hertz (b) kilo-Hertz. 5) In groups, discuss and provide an answer for the questions, "What is a graph?" and "How are graphs useful?" Share information with class. (Teacher should emphasize that quantities have effects on each other and that a graph is a pictorial representation of their relationship.) Observe as teacher demonstrates the important steps involved in plotting a graph: 1. Formulating a title for the graph 2. Labelling axes of the graph with quantities and units 3. Creating scales to ensure that more than half of the grid is used in either direction 4. Plotting points accurately 5. Representing points using a small "x" (×) or a circled dot (•) 6. Drawing a thin line of best fit	Meanings of prefixes correctly determined Quantities correctly converted Graphs plotted according to the standards taught

				Use the guidelines to plot graphs from data provided by the teacher. 6) As a class, brainstorm to determine the meaning of the term 'slope'. Discuss how slope relates to graphs and the usefulness of slopes in analysing data. (Teacher should introduce the term gradient as a synonym for slope.)	Gradient determined using the standards outlined
1.3	2 Weeks	Significant Figures & Standard form	1) Determine the number of significant figures in the expressed value of a quantity 2) Determine the number of significant figures in a calculated value 3) Express measurements and calculated values to the correct number of significant figures 4) Express measurements and calculated values in standard form (a × 10n)	1) In groups, be given a small object (e.g. a rectangular block, cylinder, sphere) for which they will measure and record the same dimension using a ruler, a vernier caliper and a micrometer screw gauge. Compare the measurements obtained, identify which measurement gives more information, and justify their selection. Share information with class. As a class, discuss the term 'precision' as it relates to measurement. Complete worksheet, provided by the teacher, on identifying the most precise value. Examples of worksheet questions: Identify the most precise value in each case: a. 0.2 g, 1.6 g, 8.24 g, 20 g b. 405 m, 879 m, 879.0 m, 870 m 2) As a class, discuss the meaning of the term 'significant figures'. (Teacher should emphasize that the significant figures of a number are those digits that carry meaning contributing to its precision.) Discuss the rules for identifying significant figures in a given number, as provided by the teacher, and observe the examples done by the teacher. Complete teacher provided worksheet on significant figures. 3) As a class, discuss the rules for determining significant figures in numbers obtained from calculations, as provided by the teacher, and observe the examples done by the teacher. Complete teacher provided worksheet on	Measurements correctly taken Measurement that gives most information identified Correct answer provided on precision worksheet Correct answer provided on significant figures worksheet

				significant figures, or the significant figures worksheet on the e-Learning website (http://www.cremja.net/moodle). 4) In groups, find out the distance of the sun from the earth, in metres. Given the speed of light (in m/s) and the formula for calculating speed, determine the time it takes for light to travel from the sun to the earth, in seconds. As a class, discuss the level of difficulty in carrying out the task. 5) Discuss the rules for expressing numbers in standard form, as provided by the teacher, and observe the examples done by the teacher. 6) In groups, carry out the same task using standard form. Discuss the advantages of this method (standard form) and share with class. Complete teacher provided worksheet on standard form. (Teacher should point out that in expressing a number in standard form, the number of significant figures should be retained.) 7) Carry out similar tasks, for example finding the time for a text message to travel from Jamaica to London, performing calculations using numbers in standard form. (Teacher should include other tasks relevant to students' experiences.)	Acceptable value for distance sun from the earth given Calculation of time for light to travel from sun to earth correct Logical advantages given for using standard form- Correct answer provided on standard form work-sheets Correct answer provided in standard form
UNIT 2 Introduction to chemistry					
2.1	2 Weeks	Introduction to chemistry	1) Define the term Chemistry. 2) State the three main branches of chemistry 3) Identify at least five chemists and outline their contributions to the development of Chemistry. 4) Identify basic laboratory	1) View video presentation on the importance of Chemistry to everyday life. Engage in teacher led discussion on the impact of Chemistry (areas such as pharmaceuticals, cosmetics etc). 2) Create a chart, possibly using appropriate software, to show the link between Chemistry and all the other branches of Science. Chart to be displayed in the class.	Actively participate in discussion Inferences on the importance of Chemistry made Correct information displayed Link between Chemistry and

			apparatus and associate each with their correct functions. 5) Use appropriate apparatus to measure quantities such as volume, mass and temperature.	3) In groups, browse and search online sources and other media for information on the contribution of named scientists to the development of Chemistry. Prepare information for presentation to the class using suitable software (e.g., presentation, moviemaking, and sound recording) or other physical media. Present information to the class in varied formats. 4) View display/ read handout of basic lab apparatus and participate in a teacher led discussion on their names and uses Draw diagrams of common laboratory apparatus in laboratory books and indicate what they are used for. 5) In groups, use correct apparatus to measure the volume, mass and temperature of selected substances and record results in a table using appropriate units (such as ml/ cm3 - volume, g - mass and °C – temperature).	branches of Science made Correct information presented Neat and concise Correct names identified Properly labelled diagrams Correct measurements taken Correct equipment used Appropriate units record
UNIT 3 Chemical Bonding, Formulae and Equations					
3.1	**2 Weeks**	**The Atom**	1) Describe with illustrations, the structure of atoms of atomic number 1 to 20; 2) State properties of electrons, protons and neutrons. 3) Determine the electronic configuration of an atom. 4) Define atomic number and	Students will: 1) Complete a table comparing the properties of the subatomic particles and their location. 2) Draw the atomic structure for the first 20 elements. 3) Work out the electronic configuration for the first 20 elements. 4) Make models of atoms.	Calculate the protons, neutrons and electrons for the first 20 elements.

			mass number; 5) Interpret notations of the form a c X b d		
3.2	**1 Weeks**	**Arrangement of elements in the Periodic Table**	1) List the names and symbols of the first twenty elements. 2) State that the elements are arranged based on their atomic number. 3) Distinguish between periods and groups. 4) Deduce the pattern for determining electronic configuration of the first 20 elements.	1) Students are to complete a blank periodic table for the first twenty elements. They are to write down the atomic number, mass number, name of element, symbol, draw their atomic structure and write down the electronic configuration for each. 2) In groups students will use the periodic table they completed to distinguish between group and period.	Students will get a quiz on the first twenty elements. Need to know the correct order.
3.3	**1 week**	**Elements, Compounds & Mixtures**	1) Define element and compound. 2) Give examples of elements and compound. 3) Use the octet rule to explain why atoms bond. 4) Differentiate between physical changes and chemical changes.	1) In groups, provide three examples each for elements, compounds and mixtures. 2) Students will be given images depicting different chemical changes. Students are to choose which images are chemical changes and which are physical changes.	Complete a worksheet where they are to determine if the images a depicting a pure element, pure compound, or a mixture of compounds and elements, etc.
3.4	**2 Weeks**	**Ions**	1) Define ion. 2) Explain the difference between an anion and a cation. 3) Calculate the ionic charge. 4) Illustrate the formation of ions.	1) Draw diagrams of ions. 2) Work out the electronic configuration for different ions. 3) Determine the charge of an ion.	Calculate the protons, neutrons and electrons, electronic configuration and charge for different ions (cations and anions).

<table>
<tr><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>3.5</td><td>2 Weeks</td><td>Chemical bonding (Ionic Bonding & Covalent Bonding)</td><td>1) Define ionic bonding.
2) Draw dot and cross diagrams to represent ionic bonding.
3) Write the formulae of simple binary ionic compounds using symbols and valencies.
4) Investigate the physical properties of ionic compounds.
5) Define covalent bonding.
6) Draw dot and cross diagrams to represent covalent bonding.
7) Write formulae of simple covalent compounds.</td><td>1) In groups, view a chart/ handout of common ions and engage in an activity to write the formulae of ionic compounds provided by the teacher.
2) In groups, select two cards one from each colour (one colour has cations and the colour has anions) and complete the following chart for the compound formed between the two ions selected.
<table>
<tr><td>Positive Ion</td><td># of electrons lost</td><td>Negative Ion</td><td># of electrons gained</td><td>Formula of Compound</td><td>Name of Compound</td></tr>
<tr><td>Ca^{2+}</td><td>2</td><td>F^{-}</td><td>1</td><td>CaF_2</td><td>Calcium Fluoride</td></tr>
</table>
3) Construct models of sodium chloride using two different coloured balls of modelling clay held together by short lengths of match sticks to represent ionic bonds.
4) In groups, students are to form molecules using their bodies.</td><td>Correct formula on completed worksheet.

The chart is correctly completed.

Complete a worksheet on writing chemical formulae for both ionic and covalent compounds.</td></tr>
<tr><td>3.6</td><td>2 Weeks</td><td>Chemical Equations</td><td>1) State and apply the Law of Conservation of Mass to writing balanced equations.
2) Investigate the Law of Conservation of Mass using precipitation reactions.
3) Translate word equations for simple chemical reactions into symbol equation.
4) Write balanced chemical equations with state symbols.
5) Write ionic equations.</td><td>1) In groups, students will be given word equations to convert into balanced symbol equations with state symbols. They are to write the ionic equation for that balanced equation.</td><td>Complete a worksheet on changing word equations into symbol equations.

Complete worksheet on ionic equations.</td></tr>
</table>

3.7	**2 Weeks**	**Chemical Reactions**	1) Construct balance symbol equations and ionic equations from given information. 2) Explain the difference between exothermic and endothermic reactions. 3) Cite examples of exothermic and endothermic reactions.	4) <u>Combustion Reaction</u> View online or teacher demonstration of the reaction of burning magnesium in air or a pinhead portion of sodium metal in water and write the word equations for the reactions. Participate in brief teacher-led discussion on how to represent chemical reactions with equations. Identify reagents, products and yield arrow in sample equations. Write chemical equation for the reaction. 5) <u>Oxidation</u> View online or burn a piece of carbon over a Bunsen flame and write the word and symbol equations for this reaction. 6) <u>Decomposition (thermal)</u> View online or heat copper or calcium carbonate over a Bunsen flame. Test the gas produced. Determine the reactants and products and formulate word and symbol equations. 7) <u>Displacement</u> View online or add a small quantity of zinc (granulated) to copper sulphate solution in a test tube. Shake and observe after a few minutes. Formulate word and symbol equations for the reaction. (*Any loss of energy as heat should be noted and used to highlight exothermic reactions*) Or Add a few 5 cm^3 of a soluble salt solution A (e.g. barium chloride) to a test tube containing a second soluble salt solution B (e.g. zinc sulphate). Record observations. Write	Accurate observations noted Correct word and symbol equation

				word and symbol equations. *Activity can also be used to introduce writing of ionic equations.* 8) <u>Synthesis</u> The reaction of iron and sulphur heated to produce iron sulphide or demonstrate the reaction. Observe and formulate word and symbol equations. ***Concept of endothermic reactions (energy taken in from the surroundings resulting in reaction vessel becoming cold) can be introduced by dissolving a few grams of potassium nitrate or ammonium chloride in water.***	
UNIT 4 Acid, Alkalis, Salts					
4.1	**2 Weeks**	**Acids, Alkalis and Salts**	1) State that compounds can be classified as acids, and alkalis 2) Identify common acids, alkalis and salts. 3) State the properties for acids, alkalis and salts. 4) List common acids, alkalis and salts found in both the laboratory and in nature.	1) In groups, use KWL chart to say what they know and what they want to know about acids and alkalis. Participate in teacher lead discussion and complete the KWL chart. Discuss the physical properties of acids and alkalis. Produce a presentation or class wiki/poster on the physical properties of acids and alkalis.	Correctly complete chart Creative presentation with accurate information
4.2	**2 Weeks**	**pH, pH Scale & Indicators**	1) Interpret the pH Scale. 2) Use pH paper and universal indicator solution to determine pH of different substances. 3) Show that acid-base indicators	1) In groups, perform a lab activity to determine the colour changes of litmus paper and methyl orange in different acid and alkali solutions and record their observations in a variety of ways (teacher provide instructions) Add their results to class data table for display.	Accurate observations noted Data suitably displayed

			change colour in acids and alkalis. 4) Investigate household chemicals using acid-base indicators. 5) Create individual pH scale from household substances.	2) In groups, use universal indicator (pH paper and solution) to determine the pH of different household substances. Construct individual pH scales based on the pH of the household chemicals measured (write the name of the chemicals instead of the numbers on the scale). Represent findings on an enlarged diagram of the pH scale posted on whiteboard or any suitable display surface.	Accurate pH and colour changes noted pH scale displayed and labelled appropriately
4.3		**Reactions of Acids & Alkalis**	1) Investigate selected reactions of acids and alkalis. 2) Testing for hydrogen, carbon dioxide and ammonia.	1) In groups, investigate the properties of acids using simple test tube reactions of acids and metals (e.g. magnesium), alkalis (e.g. sodium hydroxide), bases (e.g. copper II oxide) and carbonates (e.g. calcium carbonate) and litmus. Test the gases hydrogen and carbon dioxide produced. Use the term neutralization to describe simple acid/base reactions. (Link – show that neutralization reactions are exothermic in nature). Write word and symbol equations for all reactions. 2) In groups, conduct research on the application of neutralization reactions to everyday life (e.g. indigestion tablets, treatment of bee and wasp stings). Perform laboratory investigations of common neutralization reactions in the home (e.g. reacting baking powder and lemon juice). Report findings (using simple scientific language, drawings, labelled diagrams, bar charts or tables). 3) In groups, investigate the properties of alkalis using test tube reactions of alkalis with acids, ammonium salts (e.g. ammonium chloride), and litmus. Test the ammonia gas produced with damp red litmus. Students guided to identify ammonia as the only alkaline gas. Write word and symbol equations for all reactions.	Accurate observations noted Balanced Equations given Neutralization reactions identified Neutralization reactions correctly identified. Accurate observations recorded Report contains correct information Accurate observations Balanced equations
4.4		**Salts**	1) Distinguish between soluble	1) In groups, investigate the solubility of salts. Be given	Correct observations noted

			and insoluble salts 2) Prepare an insoluble salt 3) Cite practical examples of neutralisation in daily life.	samples of different salts (such as sodium chloride, potassium nitrate, calcium sulphate, calcium carbonate) to test their solubility in water. Tabulate results grouping them as either soluble or insoluble. 2) In groups, make samples of insoluble salts (e.g. lead iodide) by combining solutions of two soluble salts (e.g. lead nitrate and potassium iodide) Record observations. Filter the precipitate formed then dry and collect the salt. Write word, symbol and ionic equations of the precipitation reactions.	Salts correctly classified Table contains accurate information Correct observations noted Dry sample of salt obtained Balanced equations given

PHYSICS

UNIT 1	DURATION	TOPIC	OBJECTIVES STUDENTS SHOULD BE ABLE TO:	TEACHING AND LEARNING STRATEGIES	ASSESSMENT
Working like a	**1 Hour**	**Basic and Derived**	❑ Formulate a definition for ‘physical quantity’		

scientist		**Quantity**	❑ Recall basic/fundamental quantities and their basic unit ❑ Recognise that all other quantities and unit as derived		
	4 Hours	**Area and Volume**	□ Formulate a simple working definition for the term area □ Formulate a simple working definition for the term volume □ Use appropriate units for area and volume □ Calculate the area of regular shapes □ Estimate the area of irregular shapes □ Calculate the volume of regular shaped objects □ Determine the volume of irregular shaped objects	Research Explanation Demonstration Problem solving	CW-Find the area of irregular object using a graph Use appropriate formulas to find volume of 3D objects Use the measuring cylinder to measure the volume of irregular objects HW- Complete the quiz on area to be used as recall TEST-
	1 Hour	**Mass and Force**	❑ Define mass, weight and force giving SI unit ❑ Differentiate between mass and weight ❑ Identify types of forces ❑ Determine the weight of an object		
	1 Hour	**Density**	❑ Define density and give SI unit ❑ Determine the density of an object		
UNIT 2	**DURATION**	**TOPIC**	**OBJECTIVES STUDENTS SHOULD BE ABLE TO:**	**TEACHING AND LEARNING STRATEGIES**	**ASSESSMENT**
Electricity and Magnetism	**4 hours**	**Static electricity**	Recall that atoms contain protons, neutrons and electrons and state their respective charges □ Investigate the production of static electricity □ Describe useful applications and hazards of static electricity	Research lightning and ways of reducing the dangers of lightning strikes. Create a poster/digital story etc. giving tips on safety practices that	CW- research on static electricity draw circuit Plotting a voltage verse current graph

	2 hours **4 hours**	**Current Electricity** **Electro- magnetism**	Conduct investigations with due regard for safety Work cooperatively in groups Formulate a simple working definition for the term ‘electric current’ Classify materials/substances as insulators and conductors of electricity Construct simple circuits using lamps, insulated wires, dry cells, switches to distinguish between series and parallel circuit Draw diagrams to represent series and parallel circuit Conduct investigations with due regard for safety Work cooperatively in groups Perform simple activities to identify the poles of a bar magnet Demonstrate that unlike poles attract and like poles repel Investigate the relationship between voltage (V) and current (I) in a simple series circuit Construct an electromagnet Investigate the properties of an induced current Conduct investigations with due regard for safety	reduce the possibility of being struck by lightning. Discussion Demonstration (drawings/illustrations) Simulation / actual circuits using bulbs in series or parallel.	HW- A poster to highlight safety precautions to reduce being struck by lightning Review/ read up; how to draw a graph Differentiate between a magnet and an electromagnet TEST

UNIT 3	DURATION	TOPIC	OBJECTIVES STUDENTS SHOULD BE ABLE TO:	TEACHING AND LEARNING STRATEGIES	ASSESSMENT
Thermal	**8 Hours**	**Heat transfer**	Formulate a simple working definition		

Physics			of temperature □ recall that temperature determines the direction of thermal energy transfer □ investigate physical properties which vary with temperature □ compare the transfer of thermal energy by conduction, convection and radiation □ investigate the absorption and emission of thermal energy by materials □ construct a device that utilises the principles of thermal energy transfer □ work cooperatively in groups □ carry out investigations with due regard to safety		

	DURATION	TOPIC	OBJECTIVES *STUDENTS SHOULD BE ABLE TO:*	TEACHING AND LEARNING STRATEGIES	ASSESSMENT

AGRICULTURAL SCIENCE

Growing of Crops In Controlled or Open Field Environments Using Integrated Pest Management Practices	**2 weeks** **2 weeks** **2 weeks**	**Integrated Pest Management** **Conventional Farming vs. Non-conventional Farming** **Crop Pest**	1. State what the Acronym IPM means. 2. Explain the concept of IPM. 3. Discuss advantages/disadvantages of growing crop in open field environment 4. Discuss advantages/disadvantages of growing crop in controlled environment 5. Identify and make a list of resources needed to grow given crops in open field environment 6. Identify and make a list of resources needed to grow given crops in controlled environment 7. Research crop pest management measures and develop strategies suitable for IPM, and make presentation to class 8. Outline characteristics	Students will: 1. Select the resources to grow crops in open field environment 2. Select crops to be grown in open field and/or in controlled environments 3. Design forms for daily record keeping 4. Research, develop Inventory record form 5. Design the proposed growing area 6. Create a list of resources required to implement the design growing	1. Clearly explain advantages/disadvantages of IPM. 2. Advantages/disadvantages of growing crop in open field/controlled environment clearly explained 3. Resources needed to grow given crops in open field/controlled environment listed 4. Samples of important records created 5. Required resources selected from available resources options 6. Projected production levels calculated accurately according to enterprise/industry standards 7. Select crops to be grown based on planting environment correctly 8. Identify possible pest

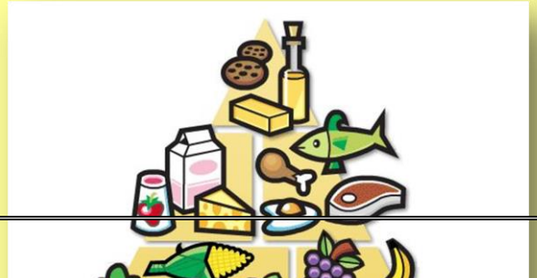
			of common pests 9. Demonstrate knowledge of the life cycle pests 10. Discuss stages of infestation of crops 11. Identify types of records to be kept - Budget - Inventory - Income & Expenditure - Profit & Loss - Crop Rotation - Crop Protection (treatment) - Production		based crop damage observed 9. Select and justify Pest management 10. Develop mechanical pest and disease control procedures **<u>Unit Test 1</u>**
	3 weeks	**Farm Records**		7. Develop a budget 8. Develop a projected and actual budget for the crop to be produced 9. Use a spreadsheet to develop records/schedules of: ✓ Planting date ✓ Crop mortality ✓ Inventory ✓ Cultural activities ✓ Weed and insect pest present in area ✓ Pest damage to crops	11. Prepare basic partial and complete budgets 12. Create simple business documents, especially for record keeping 13. Develop a plan/schedule of activities for an enterprise 14. Spreadsheets used to generate required records 15. Present schedule of

				✓ Types of pest management practices performed ✓ Beginning and ending of pest management programme ✓ Observations made before, during and after integrated pest management programme ✓ Projected and actual yields ✓ Develop conclusion and recommendation based on findings	tasks on spreadsheet(s) 16. Accurate budget projections done for designed projects 17. Designed Pest management plan for implementation 18. Develop integrated pest management programmed 19. Create safety charts 20. Develop marketing plan 21. Develop harvesting and packaging procedures to suit market requirements **<u>Unit Test 2</u>**
Mini-Enterprise	**8 weeks**	**Entrepreneurship**	Create an agricultural project idea from an observed problem or need. 1. Design a mini-business concept to solve the problem or satisfy the need. 2. Carry out a feasibility study/market survey of the project to be completed. Use online search tools to aid investigation and research	1. Daily record sheets designed to collect relevant data 2. Budgets developed; guided by outcome from discussions. 3. Flowcharts developed and created 4. Charts showing steps in decision-making process created and displayed 5. Capital (funding) successfully raised 6. Management committee	1. Design a simple production project from an observed need 2. Determine the type and extent of data to be collected to establish a business enterprise. 3. Design a simple, 'virtual' production project from an observed need

			3. Formulate a management committee that will oversee the operations of the project 4. Develop forms for keeping record of mini-enterprise using appropriate software 5. Discuss complete and partial budget and develop one of each for the enterprise 6. Use software tools to prepare flow charts to show major factors to be considered for a chosen agriculture career 7. Identify creative means of sourcing capital (funding) for the project 8. Plan a step by step outline of how the project will be executed 9. Identify a project that can be completed within a term 10. Create and display charts depicting the steps in the decision making 11. Process using appropriate display	overseeing project formed and installed 7. Step by step methods and procedures to be executed and outlined 8. Conduct research in groups to investigate the different career paths in connection with the enterprise (project) .	4. Collect and input data 5. Evaluate data 6. Identify the resources necessary to operate a given enterprise 7. Create simple business documents, especially for record keeping 8. Develop a plan/schedule of activities for an enterprise 9. Select a career pathway and develop a career plan outlining the academic requirements necessary to access this career path. **Unit Test 3**

			media. 12. Display a written plan for the selected project/enterprise. 13. Develop a list of all resources needed and use this list to determine projected expenditure for the project. 14. Prepare a partial and a complete budget for the project (projected income and expenditure)		

FOOD & NUTRITION



INTRODUCTION

This Syllabus is meant to be used as a tool for **Grade Nine** parents/guardians and students to guide them of the required learning outcomes for the academic year for Food Nutrition and Health. Food Nutrition and Health is offered on a semester basis. This is subject to minor change/s as the needs arise in the academic year.

Suggested Texts:

- Home Economics for Caribbean Schools latest edition Cynthia Marchand, et al.
- Caribbean Home Economics in Action Book 3 Fully Revised; Dr Theodora Alexander et al (**available in class**).
- A Workbook for Food and Nutrition Students, 3rd Edition by Joan Davis-Williams.

Assessments

Unit	Duration	Topic	Specific Objectives	Suggested Teaching Strategies	Assessment
First/Second Semester	Week 1	REVISION OF GRADE 8 EXAM PAPERS	Students should be able to: Answer at least 80 % of questions from the grade 8 past exam paper	• Question and Answer • Discussion • Clarification	Answering oral questions from the past grade Home and Family Management 8 paper
Nutrition Overview	Weeks 2-4	Nutrition Overview	• Define Terms – Food, nutrition, nutrients, nutritional status and assessment, diet, balanced diet, health, malnutrition- over and	• K-W-L strategy • Online Research • Discussion • Peer Learning • Grouping	• Students will assist in the formulation of definitions • Conduct anthropometric activity (weight, height, BMI) • Conduct online research present findings • Create posters to advise persons about the health

			undernutrition, macro and micronutrients. • List five signs of good and poor nutrition, • Advise persons about diet related health problems: obesity, diabetes, hypertension, heart disease and iron deficiency anemia -definition -symptoms -prevention/control -suitable foods or dishes		problems • Written quiz • Debating • Assess nutrition facts regarding food labels
Unit	**Duration**	**Topic**	**Specific Objectives**	**Suggested Teaching Strategies**	**Assessments**
Food Preparation	Week 5	Cooker/Stoves	• List 3 types of cookers • 4 Factors to consider when choosing cookers • Name 4 main parts of the cooker • Outline 3 points to bear in mind when using the	• Discussion • Questioning • Tutorial • Demonstration	Complete pages in the Food and Nutrition workbook. Demonstrate correct procedure for igniting the hob and oven. **Food and Nutrition Workbook pages 41-42**

			cooker • Explain how to care for the cooker • State 3 specific features of a modern cooker		**Caribbean Approach. Book 2 pages 75-77**
	Weeks 6 -7	Principles of cooking	• Name three types of heat transfer used in cooking foods • Describe three methods of heat transfer using labeled diagrams • Define cooking • State five reasons for cooking • List five methods of cooking - Roasting, stewing, grilling, baking, frying and boiling • Explain each method and two guidelines for success • State two advantages and disadvantages of each method • Identify four suitable foods for each cooking	• Demonstration • Discussion • Questioning • Peer Tutorial • Online and offline research • Note taking	• Graded group presentations on findings the method of cooking assigned to groups. • Practical – Prepare and display meal prepared by grilling and baking - -Grilled chicken -Baked potatoes -Tossed/arranged vegetable salad • Complete pages 65-69 in food and nutrition workbook. • Maintaining hygienic work ethic during food preparation. **Home Economics for the Caribbean Schools Chapter 6** **Activity: Students will attractively display three foodsprepared by the cooking method assigned to their groups.**

			method		**Workbook pages 65-69**
	Week 8	**UNIT TEST**	Students should be able to achieve at least 85% in a written assessment based on topics covered in weeks 1-6.	UNIT TEST	
Unit	**Duration**	**Topic**	**Specific Objectives**	**Suggested Teaching Strategies**	**Assessment**
	Weeks 9 - 10	Cake Making	*Students should be able to:* • Name and describe five methods of cake making • List the basic ingredients used • State the function of each ingredient • Faults, causes and remedies in cake making: tough, heavy texture, sunken middle and cracked top • State the position in	• Research • Discussion • Tutorial • Questioning • Demonstration	• Quiz • Food and Nutrition Work Book pages 73-80 **Home Economics for Caribbean Schools Chapter 16** **Activities: Brochure on cake making to include objectives** **Practical– Decorated Cupcakes (Creaming method)**

			oven and suitable temperature		
Unit	Duration	Topic	Specific Objectives	Suggested Teaching Strategies	Assessment
	Weeks 11- 12	Pastry Making	• Terms Associated with Pastry: pastry, dough, relax, baked blind • Choice and function of ingredients • Four guidelines for making short crust pastry • Basic tools used in pastry making: rolling pin, pastry board, pastry cutter, food brush, pie pan& pastry blender	• Grouping • Research • Demonstration • Presentation	• Quiz • Chart making- group activity **Home Economics for Caribbean Schools Chapter 17** **Activities: Project to include terms and pictures of tools used in pastry** **Practical: Preparing sweet and savoury items using short crust pastry:** **Plantain Tarts/Gizzadas (sweet)** **Ackee/Vegetable Cups (savoury)**
	Week 13	Food Preservation	Students should be able to: • Reasons for preserving	• K-W-L Strategy • Grouping	**Home Economics for Caribbean Schools Chapter 4** **Field trip: Scientific Research Council/ Preservation**

			foods • Methods/Principles of food preservation: Freezing, Drying, Heat Treatment, Treatment with chemicals preservatives (salt, sugar and vinegar)		**Class experiments** **Home work: Food Preservation research**
	Week 14	**UNIT TEST**	Students should be able to achieve at least 85% in a written assessment based on topics covered in weeks 7-10.		
	Week 15	Product Development	Students should be able to: Briefly Define and Explain the Stages of product development Packaging and labeling •	• Grouping • Presentation • Guided discovery learning/Researching • Oral quiz	**Group Activity:** • **Develop an original product using pastry, cake, jams and ready prepared dishes using indigenous foods** • **Conduct a needs assessment/market survey** • **Prepare a sample of the product/itemand conduct sampling of the product** • **Design and make food labels** • **Package the product**

					•
		•	•	•	
	Week 16	**Revision of all topics done**			

INDUSTRIAL TECHNIQUES

UNIT	TOPIC	DURATION	SPECIFIC OBJECTIVES At the end of the lesson students should be able to:	SUGGESTED TEACHING ACTIVITIES	ASSESSMENT
Unit 1 – Operating Power Equipment	Introduction to Portable and Stationary Machines.	***1week***	1. Differentiate between portable tools and stationary machines 2. List at least five (5) types of portable tools 3. List at least five (5) types of stationary machine 4. State at least three (3) safety precautions when operating machine tools 5. Identify safety zones and colours when operating machines	• Students observed individually or in groups as they execute tasks: • Using tools and equipment Practicing health, safety and • environmental protection habits Evaluating and modifying as work	• Assignment on the different types of Portable and Stationary Machines in the form of pictures and a brief explanation •
Unit 2 – Fundamentals of Design and Drafting	• Constructing and Bisecting Angles • Constructing plane figures	***5week***	1. Geometrically constructing and bisecting angles accurately ranging from 30^0- 150^0 2. Name at least three (3) types of quadrilaterals 3. Geometrically constructing a square, rectangle, rhombus and parallelogram given specific measurements. 4. Name at least three (3) types of polygons 5. Accurately use Technical Drawing principles to draw angles, quadrilaterals, circles and arcs, polygons and other plane figures	• Constructing and Bisecting Angles ✓ 60^0 ✓ 30^0 ✓ 90^0 ✓ 45^0 ✓ 112.5^0 ✓ 75^0….etc • Constructing plane figures ✓ Quadrilaterals	• Accurately use Technical Drawing principles to draw angles, quadrilaterals, polygons and other plane figures

				✓ Polygons	
Unit 3 – Sketch and Design	• Design Processing	***4week***	1. Concept mapping and brainstorming ideas and derive a concept for the solution for……. 2. Demonstrate freehand sketching principles in the drawing of design solutions 3. Create two dimensional sketches or drawings of the proposed project	• Conceptualize a solution to the need through group discussion and exploration of resources and materials • Discuss possible alternatives	• Group/peer interaction/activities observed to ascertain effectiveness of teamwork and group dynamics among students. • Questioning techniques used to determine students' ability to plan effectively. • Rubric used to quantify and qualify students' competence in planning and logistics.
Unit 4 – Model making and Construction	***Title of project***	***4week***	1. Create designs to communicate ideas for the solution as well as evaluate and modify designs based on critiques and group discussions. 2. Identify available resources and materials to carry out the given tasks 3. Select appropriate resources best suited to complete assigned tasks 4. Apply a sequenced approach to the development and construction of project.	• Construction Process ✓ Layout ✓ Cutting ✓ Assembly ✓ Finishing* (Major Topic)	Students observed individually or in groups as they execute tasks: ✓ Using hand tools and powered ✓ Practicing health, safety and environmental protection habits ✓ Evaluating and modifying as work progresses ✓ Finishing given tasks to approved ✓ standards
Unit 5 – Production and Marketing Techniques	•	• 3weeks	1. List at least five (5) components of a b business plan 2. Differentiate between production and marketing 3. Select the most feasible business ideas to determine type/mode of mini enterprise	• Business modelling through the establishment of a mini enterprise	• Group activities observed to ascertain effectiveness teamwork and group dynamics among students