GOVERNMENT OF JAMAICA/ WORLD BANK REFORM OF SECONDARY EDUCATION (R.O.S.E)

CURRICULUM GUIDE GRADES 7-9

for

CAREER EDUCATION

MATHEMATICS

LANGUAGE ARTS

SCIENCE

SOCIAL STUDIES

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STATEMENT FROM THE MINISTER OF EDUCATION YOUTH AND CULTURE

For some time now, there have been three major concerns about secondary education in all schools. These concerns are — the quality of the programmes offered, access to these programmes and the inequities in the system. Consequently, the government made the decision to embark on the Reform of Secondary Education (ROSE) in order to address these issues. At the centre of the reform is the development of a common curriculum and its implementation in all institutions offering grade 7-9 programmes.

It will not be easy to provide a uniform, high quality programme. There are some schools in which the transition will not be difficult, but these are in the minority. The greatest challenge we face is in the All Age schools where the largest group with the fewest opportunities is to be found.

It is important to remember that the new Junior High programme does not mean a new school building. Some buildings will be needed, and quite a bit of renovation in many schools, but the real change is in the curriculum to which the students will be exposed and in the examinations they will write.

The Ministry of Education Youth and Culture will try to provide greater equity of support to each school, but support by the community with words, work, materials and funds will be greatly appreciated as a major contribution to this national effort. It is accepted that the Ministry cannot be the sole provider, totally responsible for the operations of schools.

The School Board for each school is expected to play a major role when a Junior High programme is started. The active involvement of the Board will hasten the implementation of the Junior High programme in a school. Each school must meet the requirements of the new programme – teachers trained to deliver the curriculum, necessary buildings, and equipment and supplies. The Ministry of Education Youth and Culture wishes to enlist the support of the Private Sector and other members of the local community, in the provision of some of these requirements, so that the triple goals of quality, access and equity in education can become a reality.

I urge all of you who are concerned with the education of our young people to help in this secondary reform programme.

Hon. Burchell Whiteman

Minister of Education Youth and Culture

STATEMENT FROM THE PERMANENT SECRETARY

Preparations for the reform of secondary education have been underway for four years, during which a national curriculum was developed and piloted (in 1991) in four All Age Schools. This piloting was extended in 1992 to an additional seven which included All Age, Secondary and High schools. In 1993, fourteen All Age and ten Secondary schools were selected to join the programme. An additional ten schools are joined on a voluntary basis. Because of the comprehensive nature of the reform, it has to be phased over approximately lifteen years.

During the five years which constitute the first phase of the ROSE programme, (1993–1998) the Ministry expects to select fifty All Age schools and twenty-two Secondary Schools for entry into the Junior High programme. Before the end of this five-year period also, a study on the Senior High school system will be conducted, and the findings and recommendations used to inform the Ministry on what directions to take in respect of this level of the reform programme.

To complement the Ministry's efforts, the reform programme will be accelerated by allowing schools to request the programme before the Ministry's planned implementation date.

Principals and teachers from schools which make this request will be given training and provided with curriculum and teachers' guides.

The training of Education Officers, Principals and teachers is a major focus of the Junior High programme. Through a joint Ministry of Education Youth and Culture / Joint Board of Jeacher Education programme, intensive in-service training will be conducted for the Principal and for teachers of grades 7-9 in each selected school. The Education Officer has a key role to play in communicating the Ministry's reform policy locally, and in supervising the implementation of the Junior High programme.

The Ministry of Education Youth and Culture looks forward to the support of the Private Sector, Board Members, Principals, Jeachers and Education Officers who are central to the success of the reform of secondary education.

Mrs. Marguerite Bowie.

Permanent Secretary

STATEMENT FROM THE CHIEF EDUCATION OFFICER

Proposals for the reform of secondary education have been on the agenda for the past several years. Regrettably, during this period, there has been a fall in education quality exemplified by over-all declining performances of secondary school students in internal and external examinations. A decrease in the allocation and use of instructional materials and equipment and a downward trend in the retention and supply of adequately and appropriately qualified teachers have also characterised the period. Not the least, have been growing discrepancies in the allocation of resources to the different types of schools. These circumstances have given rise to a multipartite system of secondary education which has tended to be inefficient and ineffective in a large measure.

Happily, the time for action to reverse the negative trends has arrived. In the school year 1993/94 a bold attempt was made through the Reform of Secondary Education Project to unify secondary education and to make it more relevant, effective and efficient. A Junior High School programme, which has as its cornerstone a good quality core curriculum, has been installed at Grades 7-9 of all secondary level school types over a period of fifteen to twenty years. The major thrust of the project is to increase access and equity, and to improve quality in terms of the teaching/learning environment which will further result in higher student gain in cognitive knowledge, skills and values. Undoubtedly, a strong commitment is required of students, teachers, parents, Education Officers, School Boards and communities to work cooperatively and diligently to improve educational quality at each school with the installation of the Junior High School programme.

It may be well to point out here that quality, and access to it, begins at the unit of the classroom. Here, students and teachers seek to interact constructively with instructional material and equipment. A culture of cooperative learning and excellence in achievement is defined and developed. A curiosity and questioning of the what, why and how of everything of significance become characteristic of the classroom environment; and the place of reading, information sharing and discussion assumes prominence. Each student is guided to realize his/her full potential and is prepared for the next stage of education.

I urge everyone, particularly School Boards, Principals and teachers to commit themselves to action to make this long awaited project a signal of success. Indeed, the project promises, and the students need a good quality secondary education. Our country, too, requires urgently a sound secondary education system. It seems to me, that it is in our power to contribute decisively to these needs and requirements.

I summon all to action.

Wesley Barrett

Chief Education Officer

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STATEMENT FROM THE CURRICULUM DEVELOPERS

The Curriculum Suides and Jeachers' Suides which set out the new curriculum for students in grades 7 — 9, have been prepared by the Ministry of Education Youth and Culture as the principal documents to guide and ensure the delivery of quality education to all secondary school students in Jamaica. This curriculum is known as the Common Curriculum, since it will eventually be implemented in all types of lower secondary institutions. The Suides represent the national requirements in the core subjects of Career Education, Banguage Arts, Mathematics, Resource & Jechnology, Science and Social Studies and in the additional subjects of Art, Drama, Suidance, Music, Religious Education, Physical Education / Dance and Spanish, which are gradually being brought on stream.

There are two new elements in the curriculum — first, Career Education, which is part of the Suidance programme offering. Career Education will increase students' understanding of their career options. It will also make demands on teachers and administrators, as it is to be infused into the other subjects to be taught.

The second new subject, Resource & Jechnology, is a composite subject, emanating from the traditional, single Jechnical and Vocational offerings. The common factor is the technological approach, which is the application of scientific knowledge of materials (resources) to the solution of practical problems. This course will lay a foundation for education and training in Grade 10. As an integrated subject, it too will require much cooperation and flexibility on the part of the teachers and administrators.

What is new in Banguage Arts, Mathematics, Resource & Jechnology, Science and Social Studies lies more in the approaches taken than in the specific content. Examples of new approaches are "Banguage across the curriculum", "Mathematics for the real world" and the use of over-arching themes which link two or more subjects. These new approaches require teachers to adopt new methodologies, such as "cooperative learning." Common planning time for teachers is another essential feature of the new programme.

Jeachers should avail themselves of all the help and suggestions made in the Jeachers' Suides, to enable them to master the changes in methodology. The recommended trend in all subjects is towards a more child-centered, less teacher-dominated approach, and it is expected that both teachers and students will benefit from this change. Jinally, it is hoped that teachers, students and planners will, through trial and exploration, work out the most successful ways of tapping the energies and releasing the creativity of all our young people.

With very best wishes,

Miss Isoline Reid, ACEO, Core Curriculum Unit

Dr Delores Brissett, ACEO, Evaluation and Counselling Unit

OVERALL AIMS FOR THE WHOLE CURRICULUM

Background

In Jamaica's Five Year Independence Plan (1963-68) the Government's aim for education was expressed as follows:

The Government affirms its belief in education not only for its inestimable social value in enabling every individual, for his own sake, to develop his personality and his talents to the fullest extent, but equally that each individual might be enabled to make a maximum contribution to society in every respect.¹

This aim was translated into policy in the 1966 New Deal for Education. Among its goals was that of:

Gearing the education of children in the age group 12-15 so that a greater percentage of pupils would be able to continue formal education – academic, vocational or technical – and benefit from that education, while those who do not will be better able to service Jamaica's manpower needs.²

The Junior Secondary Schools built under this programme were to provide:

- 1. Opportunities for all pupils to progress according to attainment, aptitude and ability.
- 2. A wide range of subjects which will stress the basics while exposing all pupils to a variety of practical areas. (It is felt that it is essential that each pupil by the age of 15 should have a good groundwork in the use of English as a communication skill and be able to do the calculations necessary to hold his or her own in everyday life The practical subjects are thought to be necessary as a part of physical development and to give young people an appreciation for the use of tools and to help overcome the phobia which many people have for activities which involve the use of the hands.³
- 3. Opportunities for the proper development of those children who will go on to the secondary cycle of secondary education while providing opportunities for prevocational education for those who will not continue formal education but who will expect to be acceptable to employers for employment and training.

¹ Five Year Independence Plan 1963-68; a long term development plan for Jamaica, Chapter 17 – Ministry of Education and Culture

² Idem.

³ Idem.

In 1983, a UNESCO team reported on the status of secondary education in Jamaica and identified major issues to be resolved. The team recommended a restructuring and rationalization of secondary education, centered on the provision of a common core curriculum for all students in Grades 7-9. Virtually all students in Grades 7-9 would have access to the same programme. The standard national curriculum would guarantee:

the appropriate uniform level of knowledge in subjects such as language arts, in mathematics and science. There would be an introduction to practical work and industrial arts.⁴

Aims

Education Programme Preparation Project (World Bank IV) (1989-92)

The study, The Reform of Secondary Education which informs the curriculum development component of this project, defines a common curriculum as follows:⁵

A common curriculum is a plan of learning for all children in terms of content, goals and learning experiences; but it must allow for students of different levels of readiness to learn differently and at different rates. In effect, a common curriculum provides all children with the same basic subject matter, but it allows for children with different levels of readiness and ability to proceed at different rates of learning.

The **Study** justifies provision of a common curriculum for Grades 7-9.

Four specific objectives are: to achieve greater equity in the secondary school system to Grade 9, to improve the quality of learning, and to enhance individual productivity, and to provide access to secondary education up to Grade 9, for more students.

EQUITY: The most serious flaw in Jamaican secondary education is lack of equity. Children have unequal access to opportunities for learning. Some schools are more effective than others, partly because of the different resources and the use of those resources to provide quality education.

The provision of a common curriculum – along with supporting implementation measures – is recommended as one of the most likely methods of achieving equity in basic educational opportunities.

⁴ Ibid.

⁵ The Reform of Secondary Education (2 vols.) World Bank/MOE & C, Jamaica, 1990, Chapter 3.

QUALITY: Providing equal access to education is one thing; providing equal access to quality education is another. There is a serious need for a general improvement in teaching. By the end of Grade 9, adolescents need to have the basics of quality education: literacy, numeracy and enough related knowledge, skills and attitudes to cope with their environment. The objectives of the common curriculum should help to realize these goals.

PRODUCTIVITY: The third objective of a common curriculum is to enable Jamaican students to be productive citizens, whether they continue their academic education, enter technical or vocational training, or enter the world of work. Every child needs a minimum set of cognitive competencies to be productive; and when the majority of students acquire them they will be trainable in the more complex job skills required in today's workforce. A basic education of nine years is essential if the majority of Jamaicans are to assume professional, skilled or semi-skilled positions, and if they are to have the capacity to acquire more education or training.

Assess: The aim is to increase the number of students accessing secondary education at Grades 10-11 and consequently tertiary education, in order to meet the needs of our nation.

The New Curriculum

The curriculum development component of the World Bank IV Project represents the first step in the development of such a common curriculum for students in the first cycle of secondary education (Grades 7-9). This common curriculum is one way in which the Reform of Secondary Education is improving quality, equity, access and productivity.

The new curriculum will provide students with opportunities to experience a broad programme as a foundation for life, for further education and for employment. In the short-term it will:

- build on the knowledge, skills and attitudes acquired in primary school
- include a balance of academic and prevocational studies
- include a programme of remediation in literacy and numeracy
- lay the foundation for further study and for employment
- increase students' opportunities for enrichment and fulfillment
- enhance students' abilities to make choices that affect the quality and direction of their lives.

CURRICULUM GUIDE - MATHEMATICS

Features of the New Curriculum

The new curriculum is designed to be:

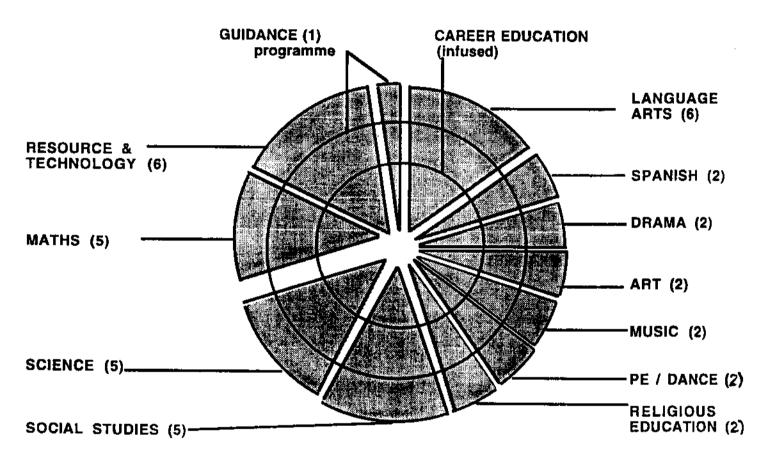
- Responsive: developed in response to national goals and student needs, by teams of teachers, education officers and specialists (Jamaican and international consultants).
- Broad and balanced: centered around five core subjects (Language Arts; Mathematics; Resource and Technology; Science; Social Studies) plus Career Education. (The Curriculum Framework is shown on page xii)
- Multi-level: (there are three levels: Foundation 1 and 2; Normative and Enrichment). While the content will be similar for all students, activities will vary to match the stages of development of the students in the class.
- Articulated: building on the primary school curriculum for Grades 1-6; preparing students for work or for CXC and other examination courses in Grades 10-11.
- Differentiated: certificates will reflect what each student has achieved.
- Socially responsible: students will work in collaboration with others and take on responsibility for their own learning.

Long Term Objectives

The new curriculum will eventually provide some optional areas of study, clearly defined achievement levels and a final certificate based on statements of students' achievements.

CURRICULUM FRAMEWORK

ROSE JUNIOR HIGH PROGRAMME — THE CURRICULUM FOR GRADES 7 - 9



CAREER EDUCATION ACROSS THE CURRICULUM

Career development is a life-long process which begins in the home, is nurtured throughout school life and is manifested in adult career choices.

In order to achieve the goal of career education across the curriculum, the curricula for Grades Seven to Nine are written in successive stages and scope and sequence.

Individuals progress through three stages of career development: Awareness, Exploration, Preparation:

Grade 7

1. Awareness begins with self and career awareness-

Grade 8

2. Exploration engages youngsters in activities to explore their own interests, abilities and values as well as to explore potential careers and opportunities

Grade 9

3. Preparation builds upon the experiences and learning as the individual prepares to make meaningful and satisfying career choices.

It is the responsibility of educators to guide this process by providing appropriate support and experiences to assist students through all stages. In particular, educators should:

- (i) expose all students to, and encourage them to explore non-traditional careers regardless of sex, race or ethnic background;
- (ii) help students develop positive attitudes towards work;
- (iii) prepare students for careers that are realistic and satisfying to them.

Career education is not a subject. It must:

- (a) be the link that joins career academic learning with the world of work.
- (b) be the tool that prepares students to make realistic career decisions as they acquire new experiences, values and goals.
- (c) be based on students' needs.
- (d) employ a team approach to teaching and learning.
- (e) include the infusion of Career Education elements into the entire curriculum.
- (f) address the needs of society as part of students' preparation to be responsible citizens.

The process of infusion involves:

- (a) the recognition/identification of the many Career Education concepts that are similar to those in other subjects areas;
- (b) the purposeful linking of the common concepts and /or areas of content identified at (a) so that they are not taught in isolation. Rather, there should be such constant cross-referencing amongst subjects that students perceive the common concepts as comprising necessary insights and information without which their education would be incomplete;
- (c) the use of methodologies and activities which ensure the development of skills and attitudes which appear in all subject areas in ways that demonstrate the relevance of these learnings and experiences to career choices.

The management of the process is important. Leadership must come from the Guidance Counsellor and /or Career Education Coordinator, but all staff members need to familiarize themselves with the main objectives of he Career Education Programme and to plan together for its effective implementation. The inclusion of career education information is very critical to the growth and development of the students. It is therefore imperative that it be explicit in lesson planning and delivery with an emphasis from the Grade Seven (7) level.

Methodologies/Strategies for Implementing Career Education

For the most effective delivery of career education, it is necessary to use a combination of simple strategies which will not burden the classroom teacher or the guidance counsellor.

The main strategies are outlined below.

1. Infusion

The major delivery system is the infusion process by which the career education concepts are introduced and reinforced in the entire school curriculum thereby becoming an integral part of all its programmes – academic, practical, aesthetic. When efficiently used by classroom teachers, the infusion strategy strengthens and facilitates academic concepts and skills.

2. Career Counselling

Career counsellors will engage in progressive, counselling through the Career Awarness, Exploration and Preparation stages. In time specially allocated to counselling, students must be engaged in activities leading to specific career education outcomes, by the time they reach the preparation stage.

3. Other Strategies

There are many programmes, projects and activities which when properly planned and implemented should provide for students of all ages, the values and qualities of a productive career education experience. Among there are:

(a) The use of Homeroom/Form/Classroom Time

for the exploration of those aspects of the education of the adolescent which are not directly addressed through the formal curriculum, but which are important for the students' overall development.

(b) Mini Projects/Mini – Business (in –school or community based)

- providing opportunity for planning, working together, sharing responsibilities, developing initiative and practising accountability.

(c) Exploration of the Environment

- Encouraging students to explore the areas in which they live and/or attend school, and to develop an appreciation and understanding of the variety of physical and socieconomic conditions existing around them.

(d) Work Experience

 Work experience opportunities, especially at the Career Preparation Stage provide exposure to the demands, responsibilities, rewards, and challenges of the world of work

(e) Intergenerational Programmes

These provide opportunities for students to interact with senior citizens in the community regarding their life and work, to learn from them, to facilitate their becoming extended families of the school community.

In implementing these main strategies, a number of techniques and approaches which have proven successful in other contexts may be applied. These include:

- using films to provide information on careers and to reinforce appropriate. behaviours for the work world.
- bringing resource persons into the classroom to help broaden students' exposure to role models, increase career information, and to motivate students to set education/career life goals.
- analysing jobs in terms of the skills, duties and tasks required of workers to clarify what workers actually do on the job and to help dispel inaccurate career information

These and other strategies and approaches are expanded and elaborated on in the Teachers' Guide

LANGUAGE ACROSS THE CURRICULUM

Language is central to the whole curriculum process. Oral and written language are both essential to the thinking process which must take place in all areas of the curriculum.

John Carrol, (1974) states that:

"the various forms of pictorial expressions are almost always accompanied by language and require language to make them intelligible".

Piaget, (1971) has written that:

"language is but one among ... the many aspects of the semiotic functions even though it is, in most instances, the most important one".

According to Fillion (1991)

"language across the curriculum stresses concern for how people learn to use language, how they use language to achieve understanding and appreciation of their experiences (including the curriculum content introduced in schools) and how language use influences cognitive development".

Broadening the concept somewhat, the writer argues that

"language across the curriculum is primarily concerned with pupils' ability to use reading, writing and talk for an increasing range of personal, social and educational purposes".

Even highly abstract processes in Mathematics and psychomotor activities use the medium not only in describing the techniques and processes but also in evoking responses.

The student who is articulate in oral and written language, who can use words to manipulate ideas, to shape thoughts and to understand key concepts, has an indispensable tool for all school learning because the ability to communicate through language is a necessary skill in all subject areas.

But what do we mean by language across the curriculum? It certainly does not mean that each subject teacher must take responsibility for teaching sentence structure, grammar and composition skills in the subject areas. Rather, language across the curriculum is "verbalization as the fulfilment of understanding within each subject area". (Thaiss, 1984). This involves such factors as:

students (in all subject areas)

- using writing to order and classify thoughts
- learning the language appropriate to the subject
- using the increasing precision the vocabulary of their subject;

teachers (in all subject areas)

- modelling the language of their subject
- attending to the conventions of written language
- becoming sensitive to the role and varieties of language learning

The following learning skills which are traditionally regarded as the purview of the language teacher are shared by all subjects in the curriculum.

1.	Locating information	-	using encyclopedias and reference books and gathering facts from field trips and interviews.
2.	Organizing information	-	outlining and categorizing
3.	Acquiring information through reading	-	using strategies such as skimming and scanning and understanding the importance of pre-reading strategies.
4.	Acquiring information through listening and observing	-	setting purpose for listening and observing
5.	Communicating orally and in writing	-	speaking with accuracy and pose, writing with clarity and exactness, using the writing process
6.	Interpreting pictures, charts, graphs, tables cartoons	-	constructing simple graphs, tables and other pictorial material including cartoons.
7.	Evaluating and applying information	-	applying problem-solving and critical thinking skills

Each subject area has its special needs although there are many held in common across the curriculum. The subject teacher needs to be aware of this and should provide learning situations which will foster the development and use of appropriate language.

The Role Of The Teacher in Curriculum Implementation

Many adults remember their classroom experiences as situations where teachers passed on information which they passively tried to absorb, store and retrieve at appropriate times. Recent research, however, indicates that it is not through passive observation but by being actively involved in the learning process that effective learning occurs.

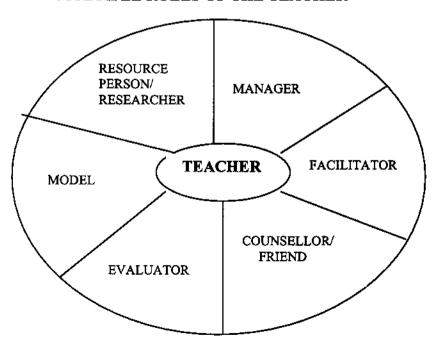
Each learner comes with previous knowledge and views of his environment into or onto which all new ideas must fit. The teacher is called upon to help the learner to reconstruct or reinforce previous ideas, and assimilate or accommodate new ideas. The teacher needs to create a non-threatening atmosphere in which the learner feels free to test and defend existing understanding and explore new ideas before accepting them.

The successful implementation of the curriculum depends largely on the teachers attitude to their subject and the methods employed in teaching. Instruction must be delivered through a wide variety of situations giving the students adequate opportunities for:

- individual and group assignments
- hands-on activities
- project work
- teacher/student interaction
- student/student interaction
- research methods etc. among other methods designed to foster problem-solving and creativity.
- self, peer and teacher assessments.

The teachers role in curriculum implementation is therefore a multi-faceted one. The teacher at times has to be manager, counsellor/friend, evaluator, role model and researcher/resource person among other roles that crop up from time to time.

MULTIPLE ROLES OF THE TEACHER



The Teacher As Manager

Teachers must be managers of their classroom and of instruction. As managers they should understand group dynamics and operate different types of grouping inside and outside the classroom. They should:

- encourage unity and co-operation among students.
- understand the students' needs and learning styles and use the information to plan lessons accordingly
- plan lessons carefully to maximize the time students spend 'on task'
- adapt the curriculum materials to suit the range of levels and abilities within the class
- promote the development of critical thinking and problem solving skills
- adopt a combination of leadership styles, being neither too permissive or too authoritative

The Teacher As Counsellor/Friend

Teachers in their roles as counsellor/friend need to create a classroom environment that is purposeful, relaxed, warm and supportive. They should:

- maintain classroom climate that is supportive of learning and characterized by mutual respect, trust and democratic decision making
- show empathy for all students and establish and maintain a relaxed, friendly yet business like working environment
- accept students non-judgementally
- enhance pupils self-esteem and self-respect
- liaise with parents and the wider community in order to involve them in the childrens' growth
- show concern about general behaviour and attitudes, personal and social development and any individual needs they may have.

The Teacher As Evaluator

Teachers as evaluators provide specific information on students performance. They confirm or verify the students' accomplishments, difficultities or social behaviours. The teachers should:

- use a variety of modes to monitor students' progress
- provide appropriate feedback on students' performance
- record and use results from students'evaluation to improve student performance, enhance their own teaching and to help students achieve prescribed attainment levels

- assist students to evaluate their own progress through the use of self-assessment activities
- assess their own performance

The Teacher As Role Model

In the classroom the 'hidden curriculum' is continuously operating. Students gain not only knowledge and skills but also imbibe attitudes, values and behaviours. Teachers therefore need to:

- demonstrate appropriate behaviour for students
- keep abreast of current affairs and encourage students to do the same

The Teacher As Facilitator

Teachers as facilitators should provide stimulating learning situations. In order to do this, they should:

- set up learning activities which effectively achieve the learning outcomes intended for each pupil
- stimulate students' interest in learning ,using appropriate activities and methodologies
- be able to elicit information from the students rather than rely on the 'telling' mode of instruction
- aim for student centered, activity oriented instruction, moving from the teacher centered approach
- provide opportunity for purposeful, task oriented and hands- on activities thereby facilitating active learning
- motivate students, offer challenges and vary methods of activity
- deliver instruction through a wide variety of methodologies
- encourage and foster creativity in students
- ensure that students at all levels of ability and attainment are given opportunities to participate in challenging activities to promote the development of skills

The Teacher as Researcher/Resource Person

Teachers as the students first resource persons need to know their subject well. They need to be aware of available resources and lead pupils to access these. In a world where knowledge is constantly changing, teachers need to:

- constantly upgrade skills and abilities through reading and research
- keep abreast of current developments in the field of education
- encourage students to keep abreast of information through wide reading and the use of electronic media.

Conclusion

The roles of teachers are many and varied. In accordance with the tenets of educational practices about the teaching/learning situation, teachers need to display appropriate attitudes and a wide range of skills and abilities. These should include flexibility, effective interaction, competence in curriculum delivery, the use of technology and a variety of appropriate resources.

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GOVERNMENT OF JAMAICA/ WORLD BANK REFORM OF SECONDARY EDUCATION (R.O.S.E)

CURRICULUM GUIDE CAREER EDUCATION

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GOALS AND GENERAL OBJECTIVES

GOALS

The major goals of the Career Education Curriculum are:

- 1. Developing self awareness
- 2. Fostering career awareness in students.
- 3. Guiding students in career exploration.
- 4. Assisting students in career preparation.

These goals recognise and reflect the stages of career development which are: Awareness, Exploration and Preparation.

GENERAL OBJECTIVES

Grade 7

- 1. In order to foster self awareness, the curriculum is designed to assist students to:
 - discover and clarify their individual aptitudes, interest and aspirations;
 - (ii) link their individual interests and aspirations to career options;
 - (iii) link their performance in other subjects to their career options.

Grade 8

- 2. In order to provide guidance in career exploration, the curriculum is designed to assist students in:
 - (i) the development of their abilities, gaining knowledge to analyze and evaluate themselves and their relationships with others;
 - (ii) gaining knowledge and understanding of entry requirements for careers of interest to them;
 - (iii) investigating the day to day activities, rewards, disadvantages and advantages related to career options;
 - (iv) matching career planning to other life goals.

Grade 9

- 3. To facilitate career preparation the curriculum is designed to assist students to:
 - (i) continuing to investigate the process of self-evaluation and relationship building;
 - (ii) developing skills in accessing processing and using career information;
 - (iii) acquiring appropriate knowledge, general skills and attitudes for the world of work;
 - (iv) developing job search skills.

CAREER EDUCATION ACROSS THE CURRICULUM

Career development is a life-long process which begins in the home, is nurtured throughout school life and is manifested in adult career choices.

In order to achieve the goal of career education across the curriculum, the curricula for Grades Seven to Nine are written in successive stages and scope and sequence.

Individuals progress through three stages of career development:

Grade 7

1. Awareness, which begins with self and career awareness.

Grade 8

2. Exploration, which engages youngsters in activities to explore their own interests, abilities and values as to explore potential careers, and opportunities

Grade 9

3. Preparation, which builds upon the experiences and learning as the individual prepares to make meaningful and satisfying career choices.

It is the responsibility of educators to guide this process by providing appropriate support and experiences to assist students through all stages. In particular, educators should:

- (i) expose all students to, and encourage them to explore non-traditional careers regardless of sex, race or ethnic background;
- (ii) help students develop positive attitudes towards work;
- (iii) prepare students for careers that are realistic and satisfying to them.

Career education is not a subject. It must:

- (a) be the link that joins career academic learning with the world of work.
- (b) be the tool that prepares students to make realistic career decisions as they acquire new experiences, values and goals.
- (c) be based on students' needs.
- (d) employ a team approach to teaching and learning.
- (e) include the infusion of Career Education elements into the entire curriculum.
- (f) address the needs of society as part of students' preparation to be responsible citizens.

The process of infusion involves:

- (a) the recognition/identification of the many Career Education concepts that are similar to those in other subjects areas;
- (b) the purposeful linking of the common concepts and /or areas of content identified at (a) so that they are not taught in isolation. Rather, there should be such constant cross-referencing amongst subjects that students perceive the common concepts as comprising necessary insights and information without which their education would be incomplete;
- (c) the use of methodologies and activities which ensure the development of skills and attitudes which appear in all subject areas in ways that demonstrate the relevance of these learnings and experiences to career choices.

The management of the process is important. Leadership must come from the Guidance Counsellor and /or Career Education Coordinator, but all staff members need to familiarize themselves with the main objectives of he Career Education Programme and to plan together for its effective implementation. The inclusion of career education information is very critical to the growth and development of the students. it is therefore imperative that it be explicit in lesson planning and delivery with an emphasis from Grade Seven (7) level.

GRADE 7 - SELF AND

Topic I: SELF

		7 ·
Main Ideas/Concepts and insights	Skills	Attitudes
 A person's self is the sum total of all that he/she is. The self includes, among other things, ideas attitudes, interests, skills abilities and values. Self is an expression of one's inner "being." 	Self evaluation Decision-making Goal setting Communication	Willingness to look critically and honestly at self and make necessary adjustments. Self acceptance,
2. Self awareness leads to a consciousness of intra and interpersonal relationships and its interaction with the environment.		Respect, Accepting others, Tolerance.
3. Self-knowledge (strengths and weaknesses, likes and dislikes etc.) facilitates decision-making about career/occupations to be pursued.		

CAREEER AWARENESS

Topic I: SELF Cont'd.

1. Class discussion on acceptable behaviour 2. Explore feelings and identify situations that can affect these feelings. 3. Discussion of common weaknesses strengths. 4. Building journal(s) Social Studies Students should begin to: 1. have a better understanding of themselves. 2. accept their strengths and limitations. 3. develop positive feelings about themselves and others. 4. develop desirable personal values.	Suggested Activities	Areas of Integration	Expected Outcomes
of career opportunities in and around community. 5. Goal-setting exercises 6. Evaluation of work done in relation to goals etc. 5. display socially accepted behaviours. 6. realize that although people are different yet they have some characteristics that are similar. 7. set realistic career goals. 8. show more interest in work done around the school and community.	 Class discussion on acceptable behaviour Explore feelings and identify situations that can affect these feelings. Discussion of common weaknesses strengths. Building journal(s) of career opportunities in and around community. Goal-setting exercises Evaluation of work done in relation to 	Religious Education Language Arts Resource & Technology Science Mathematics	 have a better understanding of themselves. accept their strengths and limitations. develop positive feelings about themselves and others. develop desirable personal values. display socially accepted behaviours. realize that although people are different yet they have some characteristics that are similar. set realistic career goals. show more interest in work done around the school and

Topic II: SELF AND OTHERS

M	ain Ideas/Concepts and Insights	Skills	Attitudes
<u> </u>	Insignts	Skins	Attitudes
1.	Healthy relationship enhance self	Self-motivation	Self acceptance (strengths and weaknesses)
2.	development. There is need for	Decision-making Communication	Willingness to accept and understand others
	interdependence	Making interpersonal value	Appreciation of family,
3.	Tolerance, understanding and honesty are necessary for good relationship.	judgements Time management	church, society, culture
4.	Showing respect for all	Time management Interpersonal	Responsibility Pride in achievement
	including the elderly and the poor, is necessary.		The manneyonell
5.	If a good relationship exists, every effort should be made to maintain it.		
6.	Effort should be made to resolve conflicts amicably.		
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Topic II: SELF AND OTHERS Cont'd.

	Suggested Activities	Areas of Integration	Expected Outcomes
1. 2. 3.	Panel Discussion on interpersonal relationships Role Play relating to each other. Journal Entry	Areas of Integration Social Studies Religious Education Language Arts Resource and Technology Science Aesthetic	Students should begin to: 1. relate positively to others. 2. accept the rights of others. 3. understand how to work and act in a group. 4. respect directives of people in authority 5. show friendliness 6. assume responsibilities for some activities in the family.

 $\textbf{Topic III:} \quad \textbf{SELF AND THE ENVIRONMENT}$

insights	Skills	Attitudes
Each person in the environment is important. It is important that each person identify his/her role and responsibility to maintain a healthy Section Se	elf assessment tesearching tecording Values Identification	Responsibility Dignity of labour Appreciation of different occupations
environment. 3. The environment has an effect on what each one does.	Participation Co-operation Decision Making	Appreciation of society and community needs Concern for the physical environment Willingness to contribute to a healthy environment Respect for healthy living and maintaining a healthy lifestyle

Topic III: SELF AND THE ENVIRONMENT Cont'd.

Suggested Activities	Areas of Integration	Expected Outcomes
 Use and care of things in the environment. Tours to places of interest in and around the community Constructing maps of places of interest-libraries, education centres, factories, 	Areas of Integration Social Studies Language Arts Resource & Technology Science Mathematics Religious Education	Expected Outcomes Students should begin to: 1. practice caring for furniture, equipment and other things in the school and the home environment. 2. show interest in neighbourhood activities with special interest in the core of the environment.
churches.	Aesthetics	 show interest in kinds of jobs done in the community. understand some relationships between living location and career or job opportunities.

Topic IV: SELF AND CAREER CHOICE

	Main Ideas/Concepts and	<u> </u>	
<u></u>	Insights	Skills	Attitudes
1.	The more education one has the greater the number of career choices.	Self analysis Critical thinking	Willingness to make meaningful choices
2.	Our career choices are dependent on a number of things e.g. experiences, influence of parents/peers, the location of our home, family commitment.	Decision-making Establishing and maintaining relationships Research	Willingness to learn Receiving and sharing information.
3.	An awareness of self and adequate career information facilitates choice of career.		

Topic IV: SELF AND CAREER CHOICE Cont'd.

	Suggested activities	Areas of Integration	Expected Outcomes
1.	Develop career tree based on subjects.	Resource and Technology Social Studies	Students should begin to: 1. appreciate differences in career choices of family members and friends.
2.	Talks on job opportunities by resource persons.	Science Language Arts	7. talk about their own career choices.
3.	Discussion on qualities of a good worker.	Mathematics Aesthetics	8. identify successful persons at work.
	Looking through "Help Wanted" sections of a newspaper and listing job opportunities in order of priority choice. Development of classroom directory of	Aesthetics	9. take responsibility for work to be done at school or at home.10. be familiar with names of companies and the types of jobs they offer.
6.	places, family and friends. Making a collage		
	depicting careers of family members.		

GRADE 8 - CAREER

Topic 1: EXPLORING SELF

M	ain Ideas/Concepts and Insights	Skills	Attitudes
1.	Self perception is the basis of self acceptance.	Self analysis	Self worth
2.	Healthy self concept	Communication	Positive thinking
	influences one's life role.	Decision-making (choices and consequences)	Appreciation and respect for others
3.	How one feels about self will influence one's thinking and achievement.	Goal setting	Pride in achievement
4.	Career goals are usually	Research	
	based on self knowledge, personal values and critical environmental factors.	Information gathering.	
5.	Knowledge of self enhances planning for the future.		

EXPLORATION

Topic I: EXPLORING SELF Cont'd.

	Suggested Activities	Areas of Integration	Expected Outcomes
1. 2. 3. 4. 5.	Discussion based on self exploration Research Interviews and surveys Interest inventories	Areas of Integration Social Studies Religious Education Resource & Technology Aesthetics Language Mathematics	Expected Outcomes Students should: 1. better understand themselves. 2. be more disciplined and responsible. 3. be knowledgeable about career interests and choices.

Topic II:

EXPLORING RELATIONSHIPS

M	ain Ideas/Concept and	Skills	Attitides
	Insights	Skills	Attitudes
1.	Good interpersonal relationships are very important for success in	Interpersonal Valuing	Appreciation of, respect for and acceptance of others
	any job or career.	Working well in groups	Responsibility and dependability
2.	For some people, getting along with others is a skill to be developed.	Communication	Tolerance
3.	Our actions have an effect	Self analysis	Understanding
	on others.	Self evaluation in relationships with others.	
4.	Some people make friends easily, are well respected and always	Co-operating	
	display a caring courteous co-operative attitude	Discriminating	
	when dealing with others.	Facilitating	
5.	It is important to learn how to maintain relationships once they are developed.	Decision-making	
6.	Maintaining a good relationship involves caring, understanding, loving, loyalty, forgiving, respecting.		
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Topic II: EXPLORING RELATIONSHIPS Cont'd.

			
<u> </u>	Suggested Activities	Areas of Integration	Expected Outcomes
1.	Brainstorming	Language Arts	Students should:
2.	Role Play	Social Studies	be more self aware and tolerant
3.	Discussion	Religious Education	
4.	Structured group exercise	Mathematics	demonstrate improved work attitudes.
5.	Self portrait	General Science	3. demonstrate an
6.	Team activity	Resource & Technology	understanding of group dynamics.
7.	Interviews	Aesthetics	be able to initiate and maintain good relationships.
	i		

TOPIC III: OCCUPATIONAL EXPLORATION

\mathbf{M}	Main Ideas/Concepts and			
	Insights	Skills	Attitudes	
1.	People are engaged in different jobs or occupations which are	Study Skills: Information gathering	Patience Perseverance	
	accorded varying status levels but all of which are important.	Collation storage and retrieval of information	Respect for all types of jobs	
2.	Jobs in the same occupation are likely to	Communication	Appreciation of societal and labour market needs	
	attract persons of similar personality types. (See	Critical analysis	Appreciation of people, community contributions,	
	Self Directed Search SDS)	Computer knowledge	civic responsibilities.	
3.	Different jobs require varying levels of skills and education.	Valuing	Responsibilities for own actions.	
4.	The development of one's country is largely dependent on the way individuals perform their jobs.			
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Topic III: OCCUPATIONAL EXPLORATION Cont'd.

Su	ggested Activities	Areas of Integration	Expected Outcomes
1.	Research	Social Studies	Students should be:
2.	Interviews	Language Arts	more aware of their responsibilities in national
3.	Projects	Resource & Technology	development.
4.	Use of modified (Jamaicanized) BICEP	Mathematics	more willing to accord status to various types of
	materials Grade 8 e.g. Impulsive Actions, Box-	General Science	jobs.
	A. Job	Aesthetics	better able to identify careers and show that they
5.	Educational Tours		are developing decision- making skills.
6.	Resource persons to add		4. more aware of the
7.	res specific topics.		importance of job performance for national development.
			5. better able to make tentative career plans.
		1	

Topic 1V: EXPLORING COMPETENCIES

Main Ideas/Concepts as Insights	nd Skills	Attitudes
 Training is likely to improve efficiency Practice improves job performance. Ability to apply effecting decision-making skills determines performance level 		Self confidence and self-reliance Willingness to follow directions Interdependent thinking
Promotion on the job depends on performance	ce.	

IV: EXPLORING COMPETENCIES Cont'd.

Suggested Activities	Areas of Integration	Expected Outcomes
1. Dramatization	Resource & Technology	Students should demonstrate:
 Dramatization Observation/work shadowing Selecting activities from the modified BICEP materials Grade 8 Drama Kids & Bosses Bicep 9.8 p. 79 	Resource & Technology Social Studies Language Arts Religious Education Mathematics Aesthetics	Students should demonstrate: 1. more willingness to study 2. greater efficiency in completing assignment. 3. more awareness of the relationship between job performance and promotion.

 $\textbf{Topic } V: \qquad \textbf{ECONOMIC EXPLORATION}$

M	ain Ideas/Concepts	Skills	Attitudes
1. 2.	Lifestyles are interrelated. Work location and work	Decision-making Job analysis & selection	Willingness to volunteer to do work. Risk taking desire for
3.	Choice affect lifestyles. A highly paid job does not necessarily guarantee job satisfaction.	Identification and use of talents, abilities, interests Research	economic security.
4.	There are many social and economic benefits associated with various occupations.	Discrimination Budgeting	
5.	Proper budgeting is one of the essentials for economic security.		

Topic V: ECONOMIC EXPLORATION Cont'd.

Suggested Activities	Areas of Integration	Expected Outcomes
See Modified BICEP Activities, Grade 8. Educational Tours	Social Studies Research & Technology	Students should demonstrate: 1. understanding of relationship between personal economic
Career Activity Resource Persons	Language General Science Mathematics	life-style and occupational roles. 2. increased ability to apply budgetary skills.
·	Aesthetics	3. an awareness of the factors that contribute to job satisfaction.

Topic VI: EXPLORING VAUES AND ATTITUDES

Main Ideas/Concepts Skills	Attitudes
1. Values are important to one's personal life and the statements one makes 2. Decisions are a reflection of individual values. 3. Personal values influence career choices. Compri	Readiness to display acceptance of people and their rights. Development of personal value systems.

Topic VI: EXPLORING VALUES AND ATTITUDES Cont'd.

	Suggested Activities	Areas of Integration	Expected Outcomes
1.	Values clarification exercise	Resource & Technology	Students should be:
2.	Value ranking	Language Arts Science	more aware of the way personal values influence decisions taken.
3.	Modified BICEP activities e.g. 9.8 p 28 Values Decisions, Seeing Success Through My Eyes	Social Studies Mathematics	2. more industrious, and responsible.
4.	Panel Discussion	Aesthetics	3. display good deportment.
		· ·	

Topic VII: SELF AND LEISURE

N	Tain Ideas/Concept and Insights	Skills	Attitudes
1.	Leisure is an important part of life	Competence	Perseverance
_		Appreciation	Patience
2.	Many factors influence our leisure choices.	Investigation	Sense of pride in achievement
3.	Choice of leisure activities is related to our	Dexterity	Productive use of time
	values.	Choice and decision making	
4.	Leisure is a means for self	Self evaluation	
	exploration and career decisions making.	Creative use of leisure	
5.	Leisure interests sometimes follow a specific pattern and are developed over time.		

Topic VII: SELF AND LEISURE Cont'd.

1. Class project 2. Club activity 3. Research 4. Leisure time inventory 5. Selections from Jamaicanized BICEP activities. 6. Journal entry 7. Create and develop leisure activities. Resource & Technology Language Arts 1. more skilled and versatile 2. beginning to spend leisure constructively 3. more involved in self-help programmes. 4. more focused creative and self directed. 4. Aesthetics	Suggested Activities	Areas of Integration	Expected Outcomes
4. Leisure time inventory 5. Selections from Jamaicanized BICEP activities. 6. Journal entry Aesthetics Constructively 3. more involved in self-help programmes. 4. more focused creative and self directed. Aesthetics	Class project Club activity	Resource & Technology Language Arts	Students who are: 1. more skilled and versatile
	 Leisure time inventory Selections from Jamaicanized BICEP activities. Journal entry Create and develop leisure 	Science Mathematics Religious Educational	3. more involved in self-help programmes. 4. more focused creative and

Topic 1: SELF IN RELATION TO WORK

Γ_{N}	Iain Ideas/Concepts and	T	
	Insights	Skills	Attitudes
1.	contribution to his/her home and country by participating in	Personal assessment e.g. of one's status Ability to find help to improve	Being understanding, facilitative and accommodative.
	meaningful work activities and by developing a productive work environment.	Goal setting	Appreciative of own strengths and weaknesses. Interested in maintaining
2.	contribute to the	Ability to put others at their ease.	mutually beneficial relationship.
	development of home and country is determined by a variety of factors.	Cooperation Communication	Appreciation of civic responsibility.
3.	More self knowledge improves the chances of finding constructive work to do.		
4.	Health, education, training and experience are vital for work roles.		
5.	Reward for work is not always immediate.		

PREPARATION

Topic I: SELF IN RELATION TO WORK Cont'd.

Su	ggested Activities	Areas of Integration	Expected Outcomes
	Projects Termly Journal(s) Study of models Establishment and monitoring of programme. Making personal life charts.	Areas of Integration Language Arts Resource & Technology Mathematics Aesthetics General Science Social Studies	Expected Outcomes Students should begin to: 1. demonstrate better decision-making skills re work and career choice. 2. display attitudes of participation, cooperation and collaboration in group activities. 3. demonstrate a more responsible attitude towards work.

Topic II: SELF IN RELATION TO OTHERS

M	ain Ideas/Concepts and		
L	Insights	Skills	Attitudes
1.	Each person must recognize his/her rights and responsibilities and respect other people's rights and responsibilities.	Co-operation Problem-solving Communication	Acting responsibly towards self and others. Showing tolerance and respect for others.
2.	All people's contribution to national development must be respected.		Recognizing the importance of workers at different levels
3.	It is a personal responsibility to collaborate with others at home and at the workplace.		Recognizing the importance of good grooming and deportment.
4.	Each worker must be willing to work towards consensus on issues.		
5.	Much of the work people do is dependent on the work of others to make it effective. Therefore a good working relationship amongst co-workers is always important.		
6.	Communication is a vital part of relationship.		
7.	Physical appearance sometimes affects interpersonal relationships.		

Topic II: SELF IN RELATION TO WORK Cont'd.

Su	ggested Activities	Areas of Integration	Expected Outcomes
1.	Participate in tasks at school and home.	Social Studies	Students should demonstrate:
2.	Discuss workers' rights; invite speakers from businesses, industries	Language Arts Resource & Technology	more active participation and involvement in school life.
	and/or trade unions to participate in discussions.	Mathematics General Science	greater sense of and responsiveness to personal values.
3.	Identify responsibilities of a worker and list them in journal(s)	Aesthetics	more amicable relationships amongst one another.
4.	Discuss ways of promoting healthy interpersonal relationships.		a more mature approach to team work.
5.	Discuss values and how they influence actions.		

Topic 111: EDUCATION AWARENESS

М	ain Ideas/Concepts and	<u> </u>	T
"-	Insights	Skills	Attitudes
<u> </u>		SKIIS	Attitudes
1.	One should take advantage of all educational	Study skills including:	Self-motivation
	opportunities for continued self improvement.	Communication	Tolerance
2.	The changing nature of work demands that the	Ability to access information independently	Independence Determination to succeed
	worker should have employable skills.	Problem-solving	Pride in achievement
3.	There are many learning	Access information from database and the internet	Appreciation of
	options e.g. on the job training part time/full time	Decision-making	education/training
	studies. The more informed the individual the better he or she is able to make realistic decisions, and job	Self directed research	
5.	opportunities. Knowledge of the skills needed for the job, the		
	educational qualification required and the role one is expected to perform will assist greatly in helping the individual make the right selection in the world of		
,	work.		

Topic III: EDUCATION AWARENESS - Cont'd.

• I	Expected Outcomes
1. Using references e.g. Employment and Training Booklet. 2. Development of personal career pathways and career ladders. 3. Involvement in; - Projects - Scrap Books making - Field trips - Work experience in industries - Entries in Career Journal(s) - Case Studies - Surfing by the internet. Social Studies Language Arts Resource & Technology Science Mathematics Aesthetics	Students should be: 1. more knowledgeable about the world of work. 2. more capable of serious consideration of their career options. 3. more motivated to achieve academic excellence as they understand the relationship between education level and career/job opportunities. 4. able to take responsibility for actions.

Topic 1V: CAREER EXPLORATION

M	lain Ideas/Concepts and		
	Insights	Skills	Attitudes
1.	Occupations require varying levels of	Research	Patience
	specialized competencies.	Communication	Flexibility
2.	The job seeker should be aware of where to search	Documentation	Alertness re job opportunities
	for jobs.	Reporting	Desire to be gainfully employed
3.	Meaningful career search requires knowledge and	Forecasting	Self directness
	use of various sources and techniques.	Networking Computer literacy	Willingness to achieve
4.	Job search sources are many and varied e.g.	Entrepreneurial skills	
	 newspaper advertisement visiting private and government agencies. school placement/bulletin board network & surfing through the network self employment. 		

Topic IV: CAREER EXPLORATION Cont'd.

Suggested Activities	Areas of Integration	Expected Outcomes
 Compilation of career clusters Using selections from Modified BICEP Activities, Grade 9 e.g. "From School to work – The Natural Link". Development of student Portfolio. Research via the internet and other sources. Work observation and simulation. Income generating projects. 	Research & Technology Science Language Arts Social Studies Mathematics Aesthetics	 able to identify career opportunities. more competent at setting and working towards career goals more aware of self-employment opportunities. able to identify job opportunities to their level of competency.

Topic V: CAREER PREPARATION

M	lain Ideas/Concepts and		
_	Insights	Skills	Attitudes
1.	The new entrant to the world of work needs to possess appropriate skills e.g. job skills.	Ability to identify different categories of job skills. Effective written communication including	Self-confidence Appreciation of good deportment
2.	Special skills are required for specific jobs. However, there are various types of basic skills which the new entrant must possess.	penmanship Interview skills Selecting appropriate attire for job interviews.	Willingness to improve on areas of skills where there is deficiency Adaptability
3.	Prior knowledge of what is expected at the work place is important.	Giving and/or eliciting information Adaptability	
4.	Knowledge in formulating and completing job-related skills.	лиариющу	

Topic V: CAREER PREPARATION Cont'd.

	Suggested Activities	Areas of Integration	Expected Outcomes
1.	Resume writing	Resource & Technology	Students should:
2.	Job application letters	Language Arts	better able to relate what they are being taught and
3.	Selections from Modified BICEP Activities, Grade 9	Social Studies	the approaches used to the world of work.
4.	·	Science	possess more realistic knowledge of the workplace.
5.	Develop glossary terms related to job application forms e.g. glossary	Mathematics	3. become more knowledgeable of job hunting skills.
6.	Community work	Aesthetics	4. have a more positive outlook on life.
			:

Topic V1: ENTRY INTO THE WORLD OF WORK

\square	fain Ideas/Concepts and		
L.	Insights	Skills	Attitudes
1.	Individuals need to learn to accept responsibility for finding employment and being knowledgeable of the commitment, financial independence and self- reliance that go with the job.	Understand instructions and following directions	Responsible work attitude Self-control and self
		Communication	confidence
		Research	High motivation
		Basic job-related	Interest in organizations
2.	Adaptability skills for keeping a job, adaptable skills are important for keeping job.	Beginning competencies	Respect for authority
		Adaptive skills	Striving for excellence
3.	Social and economic		Adaptability
	factors have implications for lifestyle.		Appreciation of labour trends
4.	One should be able to evaluate opportunities for personal growth and development in any job situation.		
5.	Each person has potential for contributing tot he world of work.	:	
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Topic VI: ENTRY INTO THE WORLD OF WORK Cont'd.

Suggested Activities	Areas of Integration	Expected Outcomes
 Class projects e.g. Junior Achievement Entries into personal journal(s)/portfolio Short term work experience Community activities 	Resource & Technology Mathematics Language Arts Social Studies General Science Aesthetics	Students should: 1. be more self-controlled and self-confident 2. be more involved in planning and implementing school activities/projects. 3. have developed some marketable skills/basic competencies. 4. be involved in community activities on a voluntary basis 5. be able to identify and develop areas of job opportunities from voluntary community activities.

Topic VII:

SELF EMPLOYMENT

Main Ideas/Concepts and Insights	Skills	Attitudes	
In order to start self employment a working knowledge of the	Communication interpersonal skills	Recognition of the dignity of labour	
economic environment is necessary.	Ability to access information from a variety of sources	Cooperation	
Self employment can start on a small scale and with a	Management, decision-making	Sense of responsibility	
simple line such as vending and leisure time	and problem-solving Record keeping	Respect for all Reliability	
activities.	Investigative	Dependability	
3. Ingredients for success include:	Numeracy	Willingness to work on own	
 careful planning good customer relationships adequate time devoted to the enterprise the money and other resources needed for beginning the operation 	Evaluative	Pride in achievement	

Topic VII: SELF EMPLOYMENT Cont'd.

	Suggested Activities	Areas of Integration	Expected Outcomes
1.	Involvement in:	Resource & Technology	Students should show:
	a) Junior Achievement programme	Language Arts	involvement in entrepreneurial projects.
	b) Mini projects	Social Studies	2. more business-like
2.	Making visits to work Sites.	Religious Education Mathematics	attitudes. 3. increased consciousness of
3.	Using resource speakers	Aesthetics	the value of time and money.
4.	Organizing feasibility studies	General Science	a greater degree of self and social fulfillment.
5.	Identifying resources to be used in income generating projects.		and social fulfillificate.

GOVERNMENT OF JAMAICA/ WORLD BANK REFORM OF SECONDARY EDUCATION (R.O.S.E)

CURRICULUM GUIDE LANGUAGE ARTS

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Curriculum Guide – Language Arts

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LANGUAGE ACROSS THE CURRICULUM

Language is central to the whole curriculum process. Oral and written language are both essential to the thinking process which must take place in all areas of the curriculum.

John Carrol, (1974) states that:

"the various forms of pictorial expressions are almost always accompanied by language and require language to make them intelligible".

Piaget, (1971) has written that:

"language is but one among ... the many aspects of the semiotic functions even though it is, in most instances, the most important one".

According to Fillion (1991)

"language across the curriculum stresses concern for how people learn to use language, how they use language to achieve understanding and appreciation of their experiences (including the curriculum content introduced in schools) and how language use influences cognitive development".

Broadening the concept somewhat, the writer argues that

"language across the curriculum is primarily concerned with pupils' ability to use reading, writing and talk for an increasing range of personal, social and educational purposes".

Even highly abstract processes in Mathematics and psychomotor activities use the medium not only in describing the techniques and processes but also in evoking responses.

The student who is articulate in oral and written language, who can use words to manipulate ideas, to shape thoughts and to understand key concepts, has an indispensable tool for all school learning because the ability to communicate through language is a necessary skill in all subject areas.

But what do we mean by language across the curriculum? It certainly does not mean that each subject teacher must take responsibility for teaching sentence structure, grammar and composition skills in the subject areas. Rather, language across the curriculum is "verbalization as the fulfilment of understanding within each subject area". (Thaiss, 1984). This involves such factors as:

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students (in all subject areas)

- using writing to order and classify thoughts
- learning the language appropriate to the subject
- using the increasing precision the vocabulary of their subject;

teachers (in all subject areas)

- modelling the language of their subject
- attending to the conventions of written language
- becoming sensitive to the role and varieties of language learning

The following learning skills which are traditionally regarded as the purview of the language teacher are shared by all subjects in the curriculum.

1.	Locating information	-	using encyclopedias and reference books and gathering facts from field trips and interviews.
2.	Organizing information	-	outlining and categorizing
3.	Acquiring information through reading	-	using strategies such as skimming and scanning and understanding the importance of pre-reading strategies.
4.	Acquiring information through listening and observing	-	setting purpose for listening and observing
5.	Communicating orally and in writing	-	speaking with accuracy and pose, writing with clarity and exactness, using the writing process
6.	Interpreting pictures, charts, graphs, tables cartoons	~	constructing simple graphs, tables and other pictorial material including cartoons.
7.	Evaluating and applying information	-	applying problem-solving and critical thinking skills

Each subject area has its special needs although there are many held in common across the curriculum. The subject teacher needs to be aware of this and should provide learning situations which will foster the development and use of appropriate language.

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PHILOSOPHY OF THE LANGUAGE ARTS GRADES 7-9

The students in grades 7-9 are young adolescents with their own unique language needs. They are at a critical stage in their lives when they are reflecting on career choices, their growing sexuality and relationships with the opposite sex, on their own identity and their future place in society. They are searching for the meaning of life and are exploring in order to make the right choices for the middle adolescent years. They need to articulate their confusions and find answers to all the "whys" that are at the back of their minds and which might be causing them to tune out the teacher.

They need language, therefore, to cover all ranges of human activities and interation

- to express feelings and opinions
- to think and talk about issues that affect their daily lives
- to learn
- to talk to their friends and family and their teachers and the wider society
- to read their text books
- to gossip about others
- to air their grouses
- to tell jokes and stories
- to show emotion
- to tease and make fun of each other
- to ask questions
- to analyze issues and situations
- to solve problems and more
- to respond aesthetically

Language is an integral part of their daily lives in and out of school. The Language programme must develop their skills and provide them with the strategies that will help them to become competent users of the Language.

Language Across the Curriculum

Whether children are learning geography or science, they need the resources of language to help them to cope with the demands of the curriculum. Reading, writing, listening and speaking are indispensable tools for the learning process as the students move across the curriculum. Each year the poor performance of students in various examinations reminds us of the importance of Language in all areas of the curriculum. In the National Assessment Programme, the results point to many weaknesses in the areas of Language Arts. In the area of Reading, the results show that at Grade 6 only 50-55% of the children are performing at the Grade 4 level of comprehension. By far the weakest area is in writing skills. The great majority of the children are under-achieving in this vital area. In addition, problems that have been noted in the area of spelling point to the fact that

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children need to read more and to be taught strategies for spelling words in common usage and words they meet in their reading.

In the content areas – Mathematics, Science and Social Studies – a review of the results referred to above, concludes that language has affected significantly the performance of the children as, in general, they are hampered by poor writing skills.

The Jamaican Language Situation

Our language situation makes its own unique demands on our language programme. Most children entering school can be seen as partially bilingual. They are usually fluent Creole speakers moving towards Standard English as the target language. The situation was recognized in the primary curriculum, where teachers were encouraged to accept the child's home language and help them to move gradually towards Standard English. In grades 7-9 there has to be some continuity in approach if we are to continue to build the students' self concept while facilitating the learning process. We should recognize that

- 1. for some students conceptualisation, thinking and talking may be best done in Jamaican Creole. The resources of both languages must therefore, be utilized in the leaning process.
- the emphasis is on communication; students must become aware of the importance of audience in determining their choice of language, vocabulary and register.

Some students have attained some measure of academic proficiency in Standard English which enabled them to pass the Common Entrance Examinations (CEE) but the majority are underachieving in the skills required for reading and writing and learning as they move across the curriculum. Teachers of grades 7-9 complain that most students lack the basic composing skills and the ability to read fiction and non-fiction materials at varying levels.

The opportunities provided in the language classes are just not enough to develop proficiency in all the skills of Standard English which students need for academic growth in the content areas. They need all the possible support they can get from the content areas to practise the skills of Standard English, to develop the vocabulary required for academic work, to provide background information that will fire their imagination and creativity, and provide content for their speaking, reading and writing tasks. They need opportunities to work together and explore ideas, opportunities to receive and process language, to develop critical thinking skills through listening, reading and writing and to apply them in meaningful and realistic contexts in and out of the classroom. These are only possible when there is integration of the Language Arts with all areas of the curriculum.

Children entering grades 7-9 are at varying stages of language development. This multilevel situation presents a challenge to the teacher, the school and the whole system. We are challenged to help all students to develop their language skills at a rate

commensurate with their level of entry. The implications for methodology are obvious and the teacher is being challenged to redefine his/her role as teacher not only in terms of teaching but being a facilitator/manager of learning.

Language as Process

Language learning is a process that is inseparable from the process of thinking itself. It is concerned with processes that are vital to all areas of the curriculum – learning and thinking processes such as planning, designing, experimenting, communicating, hypothesizing, writing, synthesizing, conceptualizing and reconstructing. These are all learned by the students as they go through the process of interacting with materials, with other persons, with data and so on. Language learning is also interactive in the sense that the learner is processing information at several levels simultaneously. In thinking, the learner moves back and forth between recall, analysis, synthesis and evaluation. In writing, the learner does not always follow the stages of pre-writing, writing and post-writing, as we sometimes neatly segment the writing process. Traditionally we have taught sentences and paragraphs before composing, but for many children this linear process does not exist, as some learn more efficiently when they can express all their ideas in one flow and then reorganise it into paragraphs and sentences. Reading is now clearly established as a process of meaning-making, as the learner interacts with texts.

The fact that language learning is an interactive, non-linear process, has implications for the sequencing of material, methodologies and approaches for teaching Language.

The Place of Grammar

Our main aim in the Language Programme is to enable students to acquire communicative competence in Standard English so that they will:

- read with comprehension appropriate to their stage of development
- listen with understanding to statements and ideas expressed by others
- express their ideas orally with clarity and confidence
- write competently, using appropriate forms of the language

Students are motivated to learn language when they appreciate these goals as worthwhile and necessary for their own success in school and later. If they perceive that a knowledge of grammar can help them to achieve these goals more efficiently they will be more motivated to learn and apply its rules. They need to understand that grammar is merely a system of rules about language and to be aware that all languages have rules, including our own Creole.

Grammar is basically learnt in two ways:

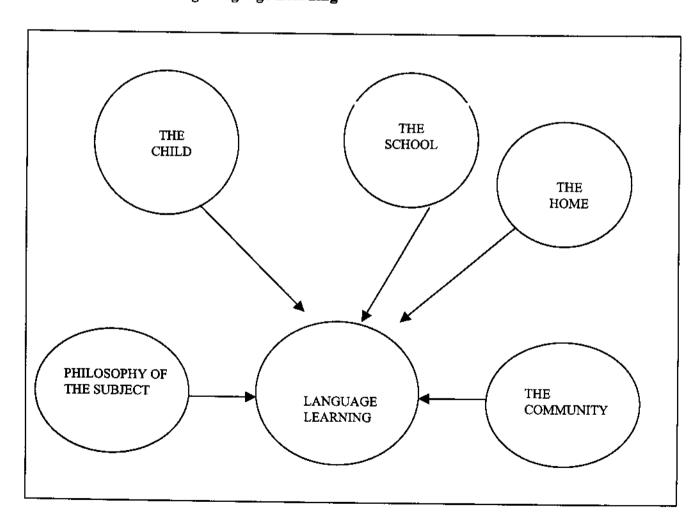
• experimentally, that is in the context of realistic communicative situations and

• cognitively, that is: learnt formally as skills and knowledge through deliberate teaching.

It is best learnt experimentally, but that is not easy in our context, where our children are not exposed to enough actual real-life situations for the practice of Standard English. Some can be created through role-plays, field trips, the subject areas, through literature, and listening to competent speakers of the language. These provide a more communicative approach particularly in the earlier stages where students are not ready for a detailed analysis of the language.

In the absence of adequate real-life experiences for practice of the Standard Language, we have to aim for a balance between the two approaches. But they must learn grammatically correct English if they are to internalize the rules and apply them automatically in language situations.

Some Factors Influencing Language Learning



The Child

- background of skills, competencies, experiences, abilities / disabilities
- learning skills
- motivation to achieve

Children enter grade 7 with varying levels of skills and competencies in language. This is usually a result of their own varied backgrounds, home environment, their previous learning experiences in primary school and their own abilities and interests. Many might be fluent conversationalists, but lack the skills necessary for academic work. Some may even have specific learning disabilities that have not been identified. Some have lost their self-confidence through previous failures and some may have lost their interest in learning language because of teaching methodologies that were not child-centred and activities that seemed to have no relevance to their lives.

But despite these apparent deficiencies, they have many strengths, for example, their rich cultural tradition, that make them receptive to language learning. Their previous cultural experiences at home and in the wider community should form the starting point for any effective language programme. Above all, any linguistic deficiency in Standard English should not be seen as a sign of intellectual deficiency. Instead we need to explore ways in which they learn language best (See Basic Principles of Language Learning – p. 31).

The School

Provision of:

- · materials and resources
- language policy
- monitoring procedures
- a language programme adapted to the needs of the school.

The school creates the environment for language learning, not only by providing the materials and resources that teachers and students need, but by establishing a philosophy of language which guides teachers in their practice.

Administrators working together with teachers create a milieu in which language is seen as the key to most of the operations within the school. It is the school that establishes the policy of infusing language skills into all subjects in the curriculum and establishes procedures for monitoring student progress, starting with basic literacy.

The Community

- Parental involvement in school
- Provision of resources
- A language environment

Parents and the community are resources that are indispensable to children's progress in language. Schools draw on these resources to establish relevance in the curriculum, thereby making learning more realistic and meaningful to the students. A variety of activities ranging from parent talks to newspaper-in-education are just some ways in which children can see the inter-relatedness of language and the community. A community that is conscious of language and its role in development and which uses language to solve problems is helping to create an environment that is supportive of language learning.

Philosophy of the Subject Matter

Perceptions of:

- Language as a tool for communication and learning vs language as a set of rules
- Language as a whole vs Language as the sum of its parts.

Perceptions of what language is, its roles and functions, influence the teaching/learning process. If we see language merely as a set of rules, it is likely that our methodology will reflect this. If we see it mainly as a tool for thinking, learning and socializing, then our approaches will reflect this. If we observe that, in real-life situations, speaking, listening, thinking and sentence construction are integrated activities and that though we may be able to read without being able to write, it is almost impossible to write without being able to read, then it is not difficult to accept the concept of integration.

We need to present language as a whole, not just the sum of its parts.

LIST OF LANGUAGE OBJECTIVES FOR GRADES 7-9

The objectives listed here are categorized under various sub-heads to ensure coverage of a range of Language Skills. There are some general objectives that incorporate several skills, and specific objectives, some of which are discrete enough to require specific focus. They span the linguistic, the cognitive and affective areas. If it is not intended that they should be taught in discrete compartments but every attempt should be made to integrate the skills as much as possible for more effective learning.

General Objectives

- 1. To develop competence through acquisition of literacy skills
- 2. To be sensitive to the value of language as a tool for expression, communication, learning and thinking
- 3. To be sensitive to audience, context and purpose for speaking, reading, writing and listening
- 4. To recognize the need to access and organize information from a variety of sources
- 5. To acquire and use SJE structures correctly in speech and writing
- 6. To demonstrate sensitivity to language differences in the class and the wider society
- 7. To bring to their writing of different types of texts some understanding of the structure and function of each.
- 8. To increase their active and passive vocabulary
- 9. To become conscious of the language styles of various disciplines and to function within them
- 10. To employ a wide range of language use from personal to technical in the content area
- 11. To appreciate and use stylistic devices such as: irony, mood, simile, metaphor, symbols
- 12. Through reading to respond with awareness to different types of literature

Specific Objectives

Listening

- 1. To listen sensitively and critically to the ideas of others
- 2. To listen for comprehension and appreciation at varying levels through:
 - recall of facts
 - interpretation
 - application
 - analysis
 - evaluation
- 3. To listen with an increasing span of concentration to others, and comment on what has been said
- 4. To listen and respond to materials read aloud, expressing opinion on what has been heard
- 5. To listen for specific language purposes in order to improve competence in the Standard Language
- 6. To know and practise strategies for good listening
- 7. To recognize obstacles to good listening
- 8. To demonstrate a grasp of sequence, cause and effect, reasoning, clarity of argument, appreciation of relevance and irrelevance
- 9. To develop the habit of listening in order to improve communication and human relationships
- 10. To develop sensitivity to the dangers of poor listening habits

Speaking

- 1. To use language appropriate to situations
- 2. To develop conversational skills
- 3. To narrate events in sequence
- 4. To speak clearly and concisely with awareness of audience
- 5. To give and to request information
- 6. To give and receive instructions and carry them out accurately
- 7. To use language to entertain
- 8. To express their own and others' ideas, attitudes and feelings with confidence and skill
- 9. To articulate their own needs and concerns
- 10. To use language to explore ideas and build concepts
- 11. To use language to persuade others
- 12. To use language to negotiate meaning with others
- 13. To use language to build sound interpersonal relationships
- 14. To reflect on and evaluate their use of spoken language and to reformulate ideas to help the listener
- 15. To be aware that language can both create and minimize conflict

16. To understand the effect of body language on oral conversation

Reading

- 1. To develop literacy skills through intensive oral reading
- 2. To acquire and use the following reading skills as necessary
 - identification of sound symbol relationships
 - word recognition
 - word meaning
 - recall comprehension
 - synthesizing
 - analyzing
- 3. To develop vocabulary skills
- 4. To understand and use common idiomatic expressions
- 5. To demonstrate increasing use of inference draw conclusions, make predictions, identify cause/effect relationships
- 6. To read a range of material with increasing independence demonstrating fluency, accuracy and understanding
- 7. To distinguish between fact and opinion
- 8. To vary reading technique and rate for purpose and content
- 9. To demonstrate awareness of pre-reading, reading and post-reading strategies as aids to improving reading competence and comprehension
- 10. To interpret pictorial materials : graphs, charts, tables, etc., from materials at grade level
- 11. To distinguish between fiction and non-fiction
- 12. To distinguish among various forms of literature
- 13. To read literature for enjoyment and with appreciation for the inter-relatedness of the elements of plot, character setting, theme and style
- 14. To show signs of developing interest in reading for various purposes personal, interpersonal and academic

Writing

- 1. To use language to explore ideas and build concepts
- 2. To write with increasing competence in a variety of forms such as poems, stories, journals, essays
- 3. To use transactional forms effectively, e.g. letters, reports, receipts
- 4. To demonstrate awareness of writing as a process
- 5. To write with increasing competence in Standard English using appropriate structures and mechanics
- 6. To write with an expanding vocabulary on a range of subjects
- 7. To develop sensitivity to and interest in using figurative language
- 8. To create visual representations to express their own meanings
- 9. To develop the writing habit

- 10. To experience the joy of creativity through production of creative pieces
- 11. To develop and demonstrate the ability to write for particular purposes : inform, comment, evaluate, persuade

Grammar

- 1. To write correctly using the basic structures and mechanics of Standard English
- 2. To learn the rules and strategies for spelling new words and words used regularly
- 3. To understand the effect of structure and mechanics on meaning
- 4. To know the basic differences between the forms of Creole and Standard English
- 5. To demonstrate an understanding of the difference between the oral and written modes
- 6. To develop an appreciation for the rules governing any language

Thinking and Problem Solving

- 1. To formulate clear ideas
- 2. To give, receive and follow accurately, precise instructions when pursuing a task
- 3. To analyze the content and message of presentations and make evaluative comments on them
- 4. To evaluate ideas of self and others
- 5. To understand that people's points-of-view influence their statements and actions
- 6. To respond critically to visual and aural stimuli (telephone, television, radio)
- 7. To demonstrate a grasp of the basic elements of clear thinking
- 8. To recognize and apply techniques of problem solving
- 9. To recognize and avoid obstacles to clear thinking
- 10. To recognize techniques of persuasion
- 11. To transfer and integrate experiences across the curriculum
- 12. To recognize and use strategies for creative thinking
- 13. To develop the habit of using language to solve problems
- 14. To foster the habit of thought before action

Research Skills

- 1. To understand the functions of the parts of a book and use them effectively
- 2. To devise a clear set of questions that will enable them to select and use appropriate information sources and reference books from the class and school library
- 3. To know how to use effectively the school library, the internet and other sources of information within the community
- 4. To investigate a topic using a variety of sources
- 5. To conduct interviews with classmates and members of the community on various subjects
- 6. To formulate and administer simple questionnaires
- 7. To distinguish between main ideas and supporting details

- 8. To analyze the content and message of visual presentations and make evaluative comments on them
- 9. To judge the relevance of material for specific topics
- 10. To summarize information
- 11. To synthesize information from different sources
- 12. To present findings in a format appropriate to the subject
- 13. To acknowledge sources of information using appropriate format
- 14. To develop an attitude of exploration in order discover truth

Study Skills

- 1. To understand one's personal learning style and use appropriate strategies to study e.g. mnemonics, acronyms
- 2. To learn and apply basic strategies: skimming, scanning, outlining
- 3. To know the aids and strategies for effective study and revision
- 4. To set management targets
- 5. To develop concentration

RATIONALE FOR DESIGN OF SCOPE AND SEQUENCE

The design of this Scope and Sequence reflects the present trend world-wide towards more communicative approaches to the teaching of language. The model used here is multi-dimensional. It emphasizes:

- The functions/purposes for which students in grades 7-9 will need language
- Language Experiences emphasizing Language use in authentic contexts (Highlighted in Unit 3).
- Language Awareness stressing awareness of their own language and culture and that of others
- Language Skills highlighting the wide range of skills linguistic and academic and social – they will need for curricular and extra-curricular activities and the strategies for developing these skills

It will be apparent that some of the skills have been repeated because of the artificial divisions in which the functions / objectives have been organized. In our integrated curriculum, skills would not be repeated but simply reinforced. It is assumed that the skills detailed here will be developed not only in the hours allocated to Language on the timetable, but also through integration with all the subject areas.

In sequencing, an attempt has been made to focus on the difficulty level of the materials as well as the needs of the students. However, the acceptance of language as process places limitations on the amount and type of sequencing that can be done.

The key used in the Scope and Sequence is intended to be a guide only, as it is assumed that teachers know their students best and will be flexible in using it.

- I = Introduce (even at the level of readiness)
- D = Develop (systematically in depth)
- Maintain (extend and re-teach where necessary)

SCOPE AND SEQUENCE

Listening

1 70	SKILLS	7	8	9	ATTITUDES
To recognize and practice strategies for listening	Establish a purpose for listening	I	D	D	Developing of a disciplined approach to listening
	Activate prior knowledge of subject in preparation for listening	D	М	M	Sensitization to dangers of poor listening habits
	Recognize and avoid obstacles to good listening	I	D	D	
	4. Focus attention	D	D	D	Appreciation of the role of listening in communication and human relationships
	Concentrate on what is being said	D	D	D	
	Listen for semantic and numerical cues	Ï	D	D	
	Use Context Clues as aid to meaning	I	D	D	
	Make notes or outlines of what is heard	I	D	D	
	9. Review what is being said	-	I	D	
	10. Understand the relationship between the pace of speech and pace of thought	I	D	D	1900
	11. Understand problems that can arise from poor listening	I	D	M	
Listen for comprehension and appreciation at varying levels	Recognize and recall facts	D	М	M	Appreciation of the role of the listening in providing feedback and encouragement
	2. Isolate main points	D	D	D	-
	3. Listen for sequence, cause and effect, line of reasoning, relevance	I	D	D	
	4. Make predictions	ī	D	D	

			Recognize statements of opinion vs fact	-	I	D	
			Recognize the use of emotionalism and its effects on sound argument	-	I	D	
		7.	Analyse the effects of style on what is understood by the hearer	-	-	I	
3.	To listen for specific language purpose in order to improve competence in Standard English	1.	Listen for specific vocabulary	D	D	D	Appreciation of the role of listening in language development
		2.	Pronunciation	D	D	D	
		3.	Effectice speech patterns e.g. pause, pace, tone	D	D	D	
			Clarity of thought and expression	-	-	-	
			Techniques of questioning and negotiation of meaning	D	D	D	
		6.	Story line	D	D	D	
		7.	Listen in order to assimilate patterns of written language	D	D	D	
4.	To listen sensitively and critically to the iedas of others and to express opinions on what has been heard	1.		D	D	D	Sensitive and critical listening
		2.	Empathize and focus on the development of points being put foward	I	D	D	
		3.	Relate what has been heard to one's own ideas and feelings and background knowledge of the subject	D	М	М	
		4.	Analyse what is said	I	D	D	
			Offer feedback and ask for clarification on what is being said	I	D	D	
		6.	Review one's own ideas based on what has been said				

Speaking

OBJECTIVES / FUNCTIONS	SKILLS	7	8	9	ATTITUDES
Understand the importance of language as a means of communication	Recognize various forms of communication	Ĭ	D	-	Appreciation of language as a tool for communication
1	Compare various forms of communication	Ī	D	•	
	Evaluate the effectiveness of the various communication media	I	Ď	D	
***************************************	4. Understand how language grows	I	D	-	
2. Develop conversational skills	Listen with concentration	D	M	M	Respect for views of others
	Use appropriate tone and body language	D	D	D	-
	Respond appropriately to statements made	D		М	Appreciation for the importance of tone and body language
	4. Take turns in conversation	D	M <	М	
	5. Ask questions	D	М	M	
3. Narrate events in sequence	Recognize beginning, crisis, climax and resolution	I	D	M	Appreciation for the value of sequence in narration
	2. Recognize cause and effect	D	M	M	
4. Speak clearly and concisely	1. Organize thoughts and ideas	D	M	M	Respect for simplicity and clarity in language
	Use simple language to present ideas	M	M		
	3. Pronounce words correctly and enunciate clearly with attention to diction, volume and pace	D	D	M	
5. Request, give and receive information	1. Ask questions correcly	D	D	M	Respect for civil behaviour
	2. Select relevant information	Ĭ	D	D	Appreciation for imporatnce of listening
	3. Sequence information	I	D	D	
	4. Interpret information	I	D	D	

	Apply information	D	D	D	
"	6. Present information clearly	D	D	D	
	and simply	7	_	17	/18*
	7. Observe common conventions and courtesy	I	D	M	
6. Use language to entertain	Evaluate mood and interest of audience	I	D	D	Demonstration of empathy
	 Select appropriate material for audeince 	I	D	M	Sensitivity to role of audience in communication
·	 Select appropriate vocabulary 	D	D	D	
	Know how to create humour, pathos	I	D	D	Appreication of the importance of body language in communication
	Speak clearly and confidently	D	D	D	
To express their own and others ideas with confidence and skill		I	D	D	Acceptance of criticism
	Select ideas to present a point- of-view	I	D	D	Self confidence
***	Recognize the importance of style, tone, connotation etc. on meaning	-	I	D	
	4. Speak clearly and politely	D	D	D	
8 To articulate their own ideas	1. Prioritize needs	Ĭ	D	D	
	2. Focus on the relevant problem	I	D	D	
	Use appropriate language to achieve desired objective / results	I	D	D	Appreciation of language as a tool for negotiation
9. To use language to build sound interpersonal relationships	Choose words carefully to express emotion e.g. sympathy, anger	D	D	D	Sensitivity to the feelings o others
	Use body language positively to express emotions	I	D	D	Sensitivity to the role o language in resolving conflict
10. To use language to negotiate meaning	Ask questions to gain information	D	D	D	Habit of questioning in orde to clarify meaning
, <u>, , , , , , , , , , , , , , , , , , </u>	Ask questions to clarify and verify understanding	I	D	D	

		3.	Request illustration of idea	Ī	D	D	
			Restate ideas for clarification	ī	D	D	
11.	To reflect on an evaluate their use of spoken language and reformulate it to help the listener	1.	Examine language in relation to purpose	I	D	D	Sensitivity to audience
		2.	Check for audience understanding through questions, et.c	I	Ď	D	
		3.	Be aware of audience response, negative and positive, to what has been said	I	D	D	
		4.	Reformulate ideas in response to feedback	I	D	D	
	Use language to explore ideas and build concepts	1.	Exchange ideas with others	I	D	D	Openness to new ideas
		2.	Ask questions and formulate hypothesis	I	D	D	
		3.	Expand and elaborate ideas	I	D	D	Appreciation of hie role of talk in thinking
•	1.0	4.	Use new ideas as base for further thinking	D	D	D	
		5.	Extract new learnings for discussion	D	D	М	
	, , , , , , , , , , , , , , , , , , , ,		To evaluate and adjust hypothesis	I	D	D	
		7.	Make predictions based on information	I	D	D	
13.	Use language appropriate to situations	1.	Use informal language with friends and family	D	D	M	Sensitivity to audience
		2.	Use formal language e.g. in church, making reports in science, history	I	D	M	· · · · · · · · · · · · · · · · · · ·
12/12/11/1		3.	Understand the role of register, style, tone in language use	I	D	D	Sensitivity to Creole and Standard English
14.	To use language to persuade	1.	Determine relevant and irrelevant information	I	D	D	Respect for truth and honesty in negotiation
		2.	Anticipate questions and likely responses	I	D	D	

	Marshall thoughts and ideas to convince	I	D	D	Respect for others' right to their own opinion
	4. Reason logically	Ι	D	D	
	Select words and expressions carefully	I	D	D	
	Emphasize key points by repitition and illustration	-	I	D	
	7. Use tone and voice effectively	I	D	D	
	Use body language effectively	I	D	D	
15. To understand the effect of body language on oral communication	 Understand the role of facial expression, gestures, use of hands, posture, body position in communication 	I	D	D	Consciousness of the role of body language in communication
 To be aware that language can create and minimize conflict 	1. Listen with calmness to others	D	D	D	Sensitivity to the power of words
	Understand factors contributing to conflict e.g. insensitivity to culture	I	D	-	Sensitivity to culture
	 Recognize the emergency of conflict and take steps to avoid it 	I	D	М	Sensitivity to others' point-of- view
	Distinguish between productive and destructive conflict	I	D	D	Avoidance of unproductive conflict

READING AND VIEWING

OBJECTIVES / FUNCTIONS	SKILLS	7	8	9	ATTITUD	ES	
. To demonstrate awareness of pre- reading and post-reading strategies as aids to improving reading competence	Establish purpose of reading	Ī	D	D	Acceptance Process	of	Reading
	Formulate questions to be answered during reading	I	D	D			
Marie II	3. Respond to teacher questions						
	4. Utilize headings, illustrations and topic sentences to predict content and aid comprehension	D	D	M			
	5. Skim to get a general impression of subject matter	I	D	M			., ·
	 Review material in order to establish main points, re- reading where necessary 	D	Ď	M			
	7. Formulate questions to assess comprehension	I	D	D			
To demonstrate knowledge and understanding of reading skills in order to improve reading competence	Identify the relationship between sound and symbol	D	М	М	Develop reading	independe	nce ii
•	2. Recognize words	D	D	D			
<u>-</u>	Syllabicate words to aid recognition	D	M	M			
	4. Be able to choose the appropriate meaning of word from context	Ď	M	M			
	5. Recognize key words	D	D	M			
	 Identify word relationships and word functions in sentences 	D	D	D	<u>.</u>		

···	7. Understand the role of	I	D	M	
	sentences and paragraphs				
	8. Infer main ideas and supporting details	D	D	M	
	9. Recognize relationships e.g.	I	D	D	41
	cause/effect, time, space				
772	10. Make inferences on the basis	I	D	D	
	of information presented				
	11. Use clues from mood,	D	D	D	
	atmosphere and setting to				
	obtain meaning				
	12. Use context clues to predict	D	D	M	
	development of ideas				
	See relationship between own	D	D	M	
	experience and text material				
	14. Synthesize, analyze and	D	D	D	
	evaluate all material read				
	15. Focus on the purpose of	I	D	D	
	reading				
	16. Vary reading technique to suit	I	D	D	
	the purpose and content				
	17. Demonstrate different types of	I	D	D	
	reading: oral reading, silent				
	reading, peer-group reading,				
	patterning teacher model,				
2 To develop an administrative	choral reading	- T		16	Total and a second a
3. To develop vocabulary skills	1. Make efficient use of (a)	1	D	M	Interest in words
	dictionary (b) thesaurus (c) context clues				
				17	
	2. Identify root words and use	D	D	M	
	these as clues to meaning				
	3. Identify and use prefixes and	D	D	M	Appreciation of the role of
	suffixes to help with word	ט	D	TAT	vocabulary in concept
	recognition and meaning				formation
	4. Recognize and use synonyms	D	D	D	TOTTIMETON
	and antonyms	ט	D		
	and antonymo				
	5. Identify meaning according to	D	D	ת	
	the function of words in context		_		
	6. Learn to spell coπectly	D	D	D	
	7. Pronounce words correctly	D	D	D	
	8. Read with the specific purpose	D	D		
	of finding new words				

	9.	Learn specialised vocabulary in order to facilitate learning in the content areas	I	D	D	
4. To demonstrate oral reading ability	1.	Read material aloud with understanding, expression and clarity	I	D	D	Self confidence
<u></u>	2.	Articulate and enunciate clearly	I	D	D	
		Project the voice showing consideration for the audince	I	D	D	Appreciation for the beauty of written language and pleasure derived from hearing it read aloud
	4.	Read at a pace suited to the material and purpose for reading	I	D	D	
	5.	Reconise the effect of punctuation marks on the written word and make use of marks such as ?,!	I	D	D	
	6.	Read with awareness of significance of rhyme patterns; rhythm; run on lines; alliteration; onomatopoeia	I	D	D	
	7.	Pronounce words correctly	I	D	D	
To interpret graphs, charts, etc. from materials at grade level	1.	Recognize these as sources of information	I	D	М	Appreciation for the value of other forms of representation of information
	2.	Note and describe the content both general and specific	I	D	D	
· · · ·	3.	Identify the author's purpose	Ι	D	D	
	4.	Understand the significance of a title	D	-	•	
	5.	Make inferences on the basis of information given in material	I	D	D	
	6.	Summarize the information presented	I	D	D	
	7.	Evaluate the information presented	I	D	D	
		Apply related information and use this as one basis for drawing conclusions	I	D	D	
	9.	Understanding the impact of visual presentations	I	D	D	

6. To understand the relevance of literature to their own lives	Use experiences gained from the study of literature to add meaning to their own lives	D	D	D	Appreciation for literature as a source of vicarious experience and problem solving
					Interest in reading literature for personal development
7. To distinguish between various forms of literature	Distinguish between fiction and non-fiction; realism and fantasy	-	D	D	Aesthetic appreciation of literature
	2. Identify the features of (a) informational texts as distinct from fiction, (b) realism as distinct from fantasy				- 11-1-11-11-11-11-11-11-11-11-11-11-11-
	Identify/appreciate the difference between poetry and prose	D	М	М	
	 Identify different types and functions of dramatic form e.g. pantomimes, comedy, tragedy, improvisation 	1	D	D	Appreciation of literature as a means of vocabulary expression
	5. Examine and discuss the writer's use of language to create word pictures, sounds feelings	1	D	D	
8. To read literature with an appreciation for the inter-relatedness of plot, character, setting, theme and style	Understand the elements of each genre e.g. story; poem; drama and their relationship to each other	I	D	D	Appreciation for the writer's craft
*	2. Understand the techniques of plot development				
<u> </u>	3. Trace the development of plot in a story				

	4.	Understand the techniques of characterisation, analyse and draw conclusions about characters		-		
1		Understand how the basic elements contribute to the overall development of the poem, story or play				
9. To evaluate different types of reading material	1.	Recognize the writer's purpose: inform, persuade, entertain	I	D	D	Habit of Critical reading
		Evaluate style in relation to content and purpose, whether humorous, straightforward, satirical, casual, conversational				
	3.	Understand techniques such as appeal to emotion, generalization, exaggeration	-	D	D	
	4.	Recognize propaganda and arguments for and against, attempts to influence opinion, use of words to create bias				
1.10		5. Distinguish relevant from irrelevant information	I	D	Ď	
	6.	Analyse the material in order to determine what can be considered fact and what can be considered fiction or opinion				
		Change conclusions in the light of new information	I	D	D	
To read a range of material with increasing independence		Discriminate between different types and levels of material	I	D	D	Interest in reading for various purposes – personal, interpersonal and academic
		Select and evaluate material appropriate to their needs citing reasons for choices, e.g. reading for specific tasks, general information, relaxation	I	D	D	
	3.	Demonstrate various levels of understanding of material read, e.g. literal, inferential, critical	D	D	D	

11.	To analyse the content and message of visual materials and make evaluative comments on them.	Select and examine visuals for specific purposes	I	D	D	Consciousness of the role and value of the visual media
		2. Understand the effect of colour and appeal in pictures, sound, lighting and colour television	I	D	D	
		Appreciate and evaluate visual media as a vehicle for vicarious experience and cultural awareness	I	D	D	Critical appreciation of the role of the visual media in learning, information and entertainment
•		Understand the importance of experience and background knowledge in effective viewing	I	D	D	
		5. Recognize the materials as expressing point-of-view and be able to interpret the view being expressed e.g. in cartoons, advertisements	I	D	D	
		6. Comment on the effect of visuals on message and mood	I	D	D	
<u> </u>		7. Understand and evaluate the techniques used in advertising	I	D	D	- 14
12.	To demonstrate an appreciation of technology as a teaching / learning device	Use the computer to locate, create, update, store and retrieve information	Ī	D	D	Appreciate the role of technology in the creation and dissemination of information

WRITING

	WKIIING				
OBJECTIVES / FUNCTIONS	SKILLS	7	8	9	ATTITUDES
To demonstrate awareness of writing as process	Understand and use the steps in the writing process e.g. reflection, pre-writing, writing, post-writing	I	D	D	Appreciation of writing as process
	2. Reflect on one's experiences and those of others	I	D	D	
	3. Understand how to respond sensitively to the writing of others	I	D	D	Sensitivity to the value of criticism from peers
	Outers				Co-operative learning
2. To use language creatively	Understand and use the creative process in order to produce efforts	I	D	D	Appreciation of writing as a source of pleasure to self and others
	Use parts of speech to convey mood, message, attitudes, pictures	I	D	D	Sensitivity to the effectiveness of different parts of speech in writing
	Use figurative language to enhance creative expression	Ď	D	D	
	4. Choose words carefully to create mood, and atmosphere and to evoke a particular response in the reader	I	D	D	Appreciation for the value of creativity in thinking and doing
3. To use language to explore ideas and build concepts	Select precise words to express thoughts and opinions: To inform, entertain, express points of view, argue persuade, evaluate) ;		D	Appreciation of the varied functions of language
	Combine words to express thoughts effectively	D	D	D	
	3. Order and develop ideas to make full, clear paragraphs	D	D	D	

		4.	To reflect on ideas of self and others	D	D	D	
4.	To write with increasing competence in a variety of forms e.g. subjective: journals, poems, personal experiences, stories objective: formal report, factual essays, scientific observations	1.	Understand the difference between objective and subjective types of language	D	D	D.	Appreciation of writing as a major form of communication and expression
	· · · · · · · · · · · · · · · · · · ·	2.	Understand and use language appropriate to each type	I	D	D	· · · · · · · · · · · · · · · · · · ·
		3.	Display increasing levels of originality, fluency and coherence	D	D	D	
		4.	Write with awareness of audience	D	D	D	
		5.	Use the relevant structures and mechanics in order to clarify meaning	D	D	D	Appreciate the role of mechanics in conveying meaning
5.	To use transactional forms effectively	1.	Use language appropriate to specific forms	I	D	D	•
			Recognize the importance of tone, clarity, sequence and precision in formal correspondence	I	Ď	D	Appreciate the need to conform to the conventions of formal writing
			Select and organise information in order to make a coherent statement	D	D	Ď	i
			Regognise and use the conventional forms in business correspondence	Ī	D	D	
6.	To write with an expanding vocabulary on a range of subjects		Know and use the strategies for generating vocabulary relevant to specific topics	Ĭ	D	M	
- -			Know and use the vocabulary relevant to each subject area	D	D	D	Sensitivity to the vocabulary in each subject area
/.	To create visual representation to express meanings	(Be able to summarize and extract main ideas for visual presentations	I	D	D	Appreciation for the usefulness of visuals to enhance presentation of material

2. Know common typ presentations and t graphs, diagrams, t	their uses :
3. Select and use be representation to su	est method of D D D uit purpose
4. Select and use infor produce / present c	

GRAMMATICAL SKILLS

OBJECTIVES / FUNCTIONS	SKILLS	7	8	9	ATTITUDES
To write correctly using the basic structures and mechanics of standard English	Understand and use correctly subject/verb agreement, singular and plural forms of nouns and pronouns	D	D	M	Desire to write correctly
	2. Understand and use correctly tense forms e.g. present, past, and future in their simple and continuous forms	D	D	M	
	3. Use correctly subject and object forms of pronouns	D	D	М	Appreciation of the difference between Creole and Standard English
	4. Distinguish between adjective and adverbs forms and use them effectively	D	D	М	
4,	5. Use prepositions, conjunctions, articles and qualifiers and possessive markers	D	D	М	Appreciation for the effect of structure and form on meaning
	6. Understand the effect of structure, form and mechanics on meaning	D	D	М	
* the mother to	7. Use correct punctuation forms	D	D	M	
	Understand and use the passive voice in situations where it is needed	-	I	D	
	9. Analyse their own errors and make relevant adjustments	I	D	D	
· · · · · · · · · · · · · · · · · · ·	10. Distinguish between standard and non-standard errors in Standard English	D	D	M	
	11. Identify features of JC: (a) Sound (phonology) (b) Grammar (syntax) e.g. the article; the verb "to be"; tense, agreement, number, the passive voice (c) Meanings (semantics)	Ī	D	D	
	12. Distinguish between Creole and Standard English features (grammar, pronunciation, word meanings) in their speech and writing.	Ī	D	D	Appreciation of the difference between Creole and Standard English

THINKING AND PROBLEM SOLVING

OBJECTIVES / FUNCTIONS	SKILLS	7	8	9	ATTITUDES
To demonstrate grasp of the elements of clear thinking	Formulate clear ideas to sho thinking and avoidance of ambiguity		М	M	Habit of thought before action
	Understand the influence of point-of-view, bias, prejudice on statements and actions	I	D	M	_
	Recognize techniques of persuasion	I	D	М	Appreciation for clear thinking
	 Recognize and avoid obstacles to clear thinking e.g. fallacies, value statements 	-	I	D	
	5. Recognize and use strategies for creative thinking)r -	I	D	
THE RESERVE OF THE PERSON OF T	6. Evaluate ideas of self and other	rs -	I	D	
	7. Analyse the content and message of verbal and non-verbal information and make comments on them	I	D	M	
To recognize and apply techniques of problem solving	Give, receive and follow accurately, precise instructions when pursuing a task	D	D	M	Habit of using language to solve problems
	2. Recognize that a problem exist	s I	D	M	
	3. Define the problem	I	D	D	Acceptance of responsibility for decisions
	4. Review known information	1	D	M	
	Transfer and integrate experiences across the curriculum	D	М	М	Awareness of the importance of good inter-personal relationships
	6. Plan how to deal with the problem	I	D	М	X
	7. Take action and face consequences	I	D	M	
	8. Review decisions	I	D	M	
	Recognize need to change conclusions in light of new information	I	Đ	M	
	10. Use problem solving techniques in solving real-life problems	I	D	M	

RESEARCH SKILLS

To investigate a topic using a variety of sources	Know how to use the library, the internet, computer software and other technological resources effectively	I	D	D	Appreciation for the role of library and information technology in learning
	2. Know the various sources of information available in the school and the wider community and their uses e.g. encyclopedia, newspaper, resource persons	I	D	M	Appreciation for the value of community resources in research
	3. Devise a set of questions to guide research	Ι	D	D	
	4. Provide opportunity for expressing oral and written forms of everyday experiences in a word, a phrase, a sentence or a short paragraph	Ι	D	D	
	5. Select relevant sources of information and relevant material from these sources	I	D	M	Habit of exploration in order to discover truth
	6. Distinguish between the ideas and supporting details	D	М	M	
To extract and organise essential content from a more extensive source	 Select and organise information using precise words to create a concise piece. 	I	D	D	
	Present findings in a format appropriate to the subject	I	D	D	
To conduct interviews on various topics	Distinguish between formal and informal interviews and understand the uses of each	Ι	D	D	Sensitivity to the ideas of others
7.0	Plan procedures for conducting interviews	I	D	D	
	3. Formulate questions to gain information	I	D	M	

		4.	Listen with concentration and	I	D	D	
			sensitivity in order to probe with follow-up questions				
		5.	Record interviews using tape- recorders and written formats	I	D	D	
		6.	Show appreciation to interviewer	I	D	D	
4.	To use reference books efficiently and with discrimination according to purpose		Understand the various functions of the parts of a book and use them effectively e.g. title, table of contents, index, title page, glossary	D		·M	Habit of critically evaluating material according to its source and date
		2.	Understand how to use encyclopedias, dictionaries as aids to learning and research	D	D	M	
		3.	Distinguish between statements of fact and statements of opinion	I	D	М	
		4.	Compare information found in various sources	I	D	D	
5.	Synthesize information from different sources	1.	Formulate a clear opinion on a theme	I	D	D	Interest in creativity
_		<u>2</u> .	Complete notes in organised manner	I	D	M	
			Cite references to support points made	I	D	D	Willingness to give credit for the ideas of others
			Use tables and graphs and other visual representation as appropriate	I	D	D	
			Create an original product	D	D	D	
		6.	Present findings in a format appropriate to the subject	D	D	D	
		7.	Prepare bibliography	I	D	M	

STUDY SKILLS

OBJECTIVES / FUNCTIONS	SKILLS	7	8	9	ATTITUDES
To understand one's personal learning style	Realise how and under what conditions one learns best – e.g. auditory, hands on				To appreciate individual differences
2. To learn and apply new techniques of learning for effective study and recall	Use appropriate study aids mnemonics, acronyms, repetition, highlighting, writing for recall		•		Willingness to learn new strategies to enhance learning
7011	Learn and apply basic strategies: skimming, scanning, outlining, SQ3R stategy				
3. To develop concentration	Set purposes for reading and study: self questioning and evaluation				

STRATEGIES FOR EVALUATION

The curriculum will be evaluated using:

- Diagnostic Testing
- Formative Evaluation
- Summative Evaluation

It will incorporate as much as possible:

- Self Evaluation
- Peer Evaluation
- Teacher Evaluation
- Parent Evaluation (in special areas)

The following strategies are recommended to facilitate the various approaches:

- Achievement Tests
- Analytic Rating Scales
- Anecdotes
- Artistic Products
- Check Lists e.g. for comprehension skills, study skills
- Creative Products
- Compositions
- Dramatization
- Diagnostic Tests
- Experimental Narratives
- Holistic Marking
- Homework
- Informal Reading Inventory
- Interviews
- Journals
- Learning Logs
- Oral Presentations
- Observation
- Project Work
- Questionnaires e.g. to establish student background and interests: teacher response
- Role-Play
- · Tracking Sheets
- Writing Portfolios

Students' Resource List

Author	Title	Publisher
Vic Reid	Young Warriors (7)	Longman Caribbean
Stewart Brown et al	Voice Print (7-9)	Longman
Jean D'Costa	Escape to Last Man's Peak) Voices in the Wind) (7) Sprat Morrison)	Longman
Everard Palmer	A Cow Called Boy (7)	Longman
	The Cloud with the Silver Lining (7)	
Jean D'Costa & Velma Pollard (Eds)	Over Our Way (7-9)	Longman
Pamela Mordecai	Sunsong 1&2 (7-9)	Longman
Pamela Mordecai (Ed.)	From Our Yard (7-9)	Inst. of Ja. Publications
Velma Pollard	Anansesem (7-9)	Longman
Mark Twain	Tom Sawyer (8) (Longman's Simplified Series) 2,000 Word Vocab. (8)	Longman
Robert L. Stevenson	Treasure Island (7))Foundation 2 (Series 740 Ladybird))	Longman
	The Adventures of Sinbad (7) The Sailor (Longman's Classics:) Simplified by D. K. Sivan,) Illus. by Andrew Brown Stage) Normative 3	Longman
Sir Arthur Conan Doyle	Three Adventures of Sherlock Holmes (Simplified by Frances Johnston – Stage 4) (7-9)	Longman

Students' Resource List (cont'd)

John Steinbeck	The Pearl (9)	
Gus Thomas	Della (9)	Jamal Foundation Kingston
Basil Lopez	Easy Street (9)	Jamal Foundation Kingston
Evon Blake	Legend of the God Bird (9)	Jamal Foundation Kingston
Peggy Campbell & Monica Sterling	Lover's Leap and other folk stories (L2) (7)	"
Evon Blake	Money for Mama) ")(7-9))Foundation 2 Night Out of Town))	
Mary Dixon	From Horseback to) Jetplane (L4)(7-9)	66
Chinua Achebe	Things Fall Apart (9) Odale's Choice (9)	Heinemann
Michael Anthony	Green Days by the River (9)	44
Earl McKenzie	A Boy Named Ossie (7-9)	**
Morna Stuart	Marassa & Midnight (8)	"
Zee Edgell	Beka Lamb (9)	**
Merle Hodge	Crick Crack Monkey (9)	64
Jan Carew	Black Midas (9)	

Evan Jones

Tales of the Caribbean (9)

Ginn 1990

GOJ/OAS HIRLAP

Butterfly Series (7-9) Foundation 2 Normative 3

Reference Material

Oxford Dictionary
Roget's Thesaurus
Dictionary of Synonyms & Antonyms
Who's Who in Jamaica
Tell Me Why
Jamaica Journal
Daily Gleaner
Children's Own
Mcmillan Children's Encyclopaedia

Material & Supplies

Newsprint Writing Folders/Portfolios

GOVERNMENT OF JAMAICA/ WORLD BANK REFORM OF SECONDARY EDUCATION (R.O.S.E)

CURRICULUM GUIDE

MATHEMATICS

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CURRICULUM GUIDE - MATHEMATICS

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Curriculum Guide - Mathematics

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PHILOSOPHY

We live in a dynamic society with knowledge increasing at an unpredictable rate. With the accompanying advance in technology, developing countries are no longer insulated from the effects of these changes, as evidenced by the extent to which the whole world is fast becoming a global village with constant interaction on many levels. One goal of education is the preparation of the young not only for this changed world, but also with the willingness and ability to face new and changing situations.

Mathematics continues to be an important component in the formation of the educated person and as such, mathematics education should reflect the goals of education in a dynamic society. We must therefore address not only the acquisition of skills and mastery of ideas. We must address more than the accumulation of facts and principles. Mathematics education in the age of information must place emphasis on the higher skills of discussion, interpreting and evaluation. Also, the acquisition of communication skills must become one of its prime goals.

As the ability to communicate demands a level of understanding of concepts within the range of ones' real life experiences, not only must every effort be made to establish clear understanding of previous knowledge, but to introduce new concepts in the context of real life experiences. This should enhance understanding.

Since many mathematical ideas are abstract in nature, every effort must be made to reduce the range of such concepts at the lower level. It is the understanding and grasp of concepts in practical experiences that give children the confidence to go on to more abstract ideas in later years.

Mathematics is all around us with situations that are not necessarily cast in a 'right-wrong' mould, but generate the need to observe, discuss, relate, analyze and draw conclusions. In drawing upon the wealth of environmental situations, children can be led to investigate, experience success and develop the level of confidence to talk mathematics.

Based on the philosophy that mathematics is all around us and that everyone uses and understands some mathematics, the Mathematics Curriculum for Grades 7-9 is designed to:

- 1. explore the existing body of knowledge;
- 2. correct, where necessary, and build upon this knowledge through activities related to everyday life, through applying (mathematical) principles of investigating, reasoning, estimating, forming conjectures and testing them, and through meaningful communication;
- 3. expand knowledge through the formation of new concepts while establishing the inter-relatedness of mathematics with other disciplines;

4. enable the development of attitudes of self-awareness and self-confidence, appreciation of enquiry, independent thinking, willingness to share, and cooperation with others in the pursuit of knowledge.

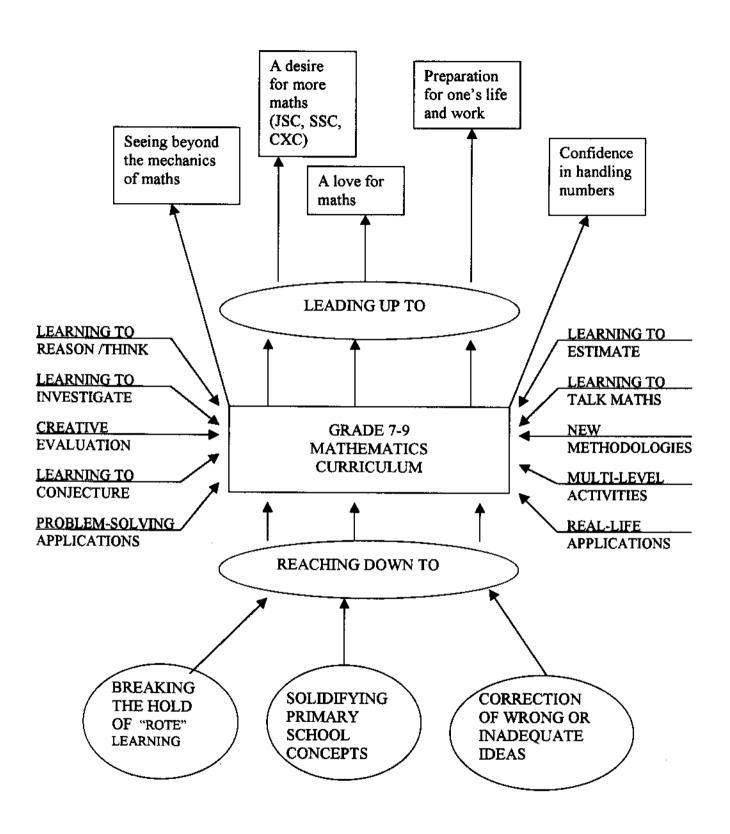
In keeping with this philosophy, learning activities should incorporate life experiences using them to correct faulty concepts, to reinforce previously learnt ones and build new ones. Mathematics should therefore be placed in contexts that give meaning to ideas and concepts.

Problem statements that arise from everyday experiences that are not necessarily textbook situations should be the focus of instruction, and at every level the students should be encouraged to formulate their own problems and ask questions that signal their own understanding and interest.

While the curriculum seeks to explore student's existing body of knowledge, instruction must challenge them to expose and use their previous knowledge in new learning situations. Learning must become, for the learner, an active experience in which the teacher guides rather than dictates the pace and assimilation of knowledge.

There should be ample opportunities for individual, group and whole class activities with an acceptable apportionment of time to all these kind of activities. Group activities offer opportunities for the students to talk about and test their ideas, listening to and evaluating their peers, thus helping them to develop their ability to communicate and reason. At the same time group activities give the teachers opportunities for closer interaction with the students. In group activities individuals develop the confidence in their own ideas which enables their participation in whole class situations.

The diagram on the following page illustrates the linkages described.



RATIONALE

Children from a very early age, begin to encounter basic ideas that will gradually evolve into more sophisticated mathematical concepts. Given a set of building blocks, for example, a young child will be able to group them close together, spread them out to form a line or even arrange them according to colour. These are mathematical concepts being developed in young children through their many discoveries as they play with objects in their environment. It is with these early experiences that children gradually begin to associate language. The teaching of mathematics serves to enhance and expand these creative abilities into logical and conceptual mathematical competencies.

It is evident, therefore, that mathematics has a vital role in the process of development and is considered to be one of the "basics" of education. The process of education must provide for opportunities to develop and extend mathematical competencies through the use of effective problem-solving processes. The ability to reason and apply mathematics in problem situations is considered an integral part of the basic skills required for mathematical literacy. The ability to solve problems increases with importance in light of the rapidly changing demands of today's technological society. Mathematics plays an important role:

- a) in our everyday lives as we interact in society
- b) at the workplace, whatever our vocation might be
- c) by developing within each individual the problem-solving skills that we all need
- d) in equipping us to meet the challenges of technology.

The Grades 7-9 Mathematical Curriculum is designed to meet these needs through the inclusion of relevant mathematical concepts, skills and attitudes.

GOALS AND GENERAL OBJECTIVES

The Mathematics Curriculum developed for Grades 7-9 has as its goals:

- 1. The development of the problem-solving approach to learning mathematics and the willingness to accept the challenges of new situations.
- 2. The development of skills of creativity, enquiry, conjecturing, testing and generalizing.
- The development of an awareness of number size and meaning, and the skills of estimation and approximation as means of establishing the reasonableness of answers.
- 4. The development of the meaning of measure as an attribute of an entity.
- 5. The development of an understanding of basic mathematical concepts and the ability to transfer this understanding to other situations within and outside the subject.
- 6. The development of an awareness of mathematics across the curriculum.
- 7. The development of the ability to discuss, interpret and evaluate data.
- 8. The acquisition of the language of mathematics to enable communication.
- 9. The development of an appreciation of technology as an aid to the learning experience.
- 10. The appreciation of mathematics in the environment and its application to real life experiences.
- 11. The reinforcement of the enjoyment of doing mathematics.

Upon completion of this course it is expected that students will be able to:

- 1. Demonstrate the mathematical competence necessary to function in society. This includes the ability to:
 - a) recall or recognize mathematical facts, definitions and symbols;
 - b) count, measure and handle money
 - c) conceptualize spatial properties.
- 2. Perform mathematical manipulations. This includes the ability to:
 - a) do straight-forward computations with confidence;
 - b) manipulate mathematical ideas

- 3. Demonstrate an understanding of mathematical concepts and processes. This includes the ability to:
 - a) communicate ideas effectively;
 - b) transform from one type of representation to another e.g. words to symbols and vice versa; equations to graphs, etc.
 - c) apply (mathematical) knowledge and understanding in new situations, both common and complex.
- 4. Use mathematics and mathematical reasoning to analyze given situations. This includes the ability to:
 - a) make conjectures;
 - b) gather information or numerical data needed for investigating/exploring an idea:
 - arrange and present findings logically.
- 5. Select knowledge, information and techniques that are needed to solve a particular problem (social, technical or academic) and apply these in the actual solution of the problem.
- 6. Appreciate the importance and relevance of mathematics as a necessary and valuable tool in everyday life.

SCOPE AND SEQUENCE BY STRANDS

INTRODUCTION

The Scope and Sequence by Strands reflects several recent research developments, and in particular, the emphasis of the National Council of Teachers of Mathematics Curriculum and Evaluation Standards.

We feel strongly that teachers being aware of the time constraints upon them, the level of attainment of their students and the level of interest being shown, should be the best judges of when to move from one strand of work to another. We strongly suggest the writing of unit plans, lasting from two to four weeks in most cases, in order to keep the syllabus on track and work varied.

WORK SHOULD NOT BE LIMITED TO ANY SINGLE STRAND FOR MORE THAN 4 WEEKS. EVERY STRAND HAS AN IMPORTANT ROLE TO PLAY IN THE INDIVIDUAL'S DEVELOPMENT.

It is expected that if concepts rather than algorithms are properly taught, the need for reteaching, remediation and revision will be seen to be much less than was previously the case.

What follows is laid out in four columns – the prerequisites for Grade 7 refer to the Primary School experience. Thereafter, prerequisites are to be found in the previous grade's work.

FINALLY, THE SCOPE AND SEQUENCE BY STRANDS IS ONLY A GUIDE. IF YOUR STUDENTS CAN GO FURTHER AND DEEPER INTO A TOPIC, DO NOT FEEL OBLIGED TO STOP. THE WORKLOAD IS A SUGGESTED MINIMUM THAT IS TO BE TAUGHT IN ALL SCHOOLS AT THE GRADES INDICATED.

Scope of Work Grades 7 - 9

Prerequisites	Grade 7	Grade 8	Grade 9
Prerequisites 1. Number - Sort and classify objects by different attributes - Basic Place Value ideas - Facility in counting - forwards, backwards and in simple multiples - Simple number patterns	1.1 Number 1.1.1 The digits 1.1.2 Numerals 1.1.3 Place Value 1.1.4 Addition and subtraction 1.1.5 Multiplication and division 1.1.6 Approximation 1.1.7 Short cuts to computation 1.1.8 Some special numbers (including HCF and LCM) 1.1.9 Divisibility tests 1.1.10 Use of a pocket calculator 1.1.11 Illustrating procedures with flow charts 1.1.12 Ordering 1.1.13 Counting 1.1.14 Sequencing and number patterns 1.1.15 Comparing 1.1.16 Using numbers to solve real problems	1.5 Integers & Rational Numbers 1.5.1 Extend the number line to include negative numbers 1.5.2 Recognize and apply negative numbers appropriately 1.5.3 Compare and order integers and rational numbers 1.5.4 The four operations on integers 1.5.5 Further work on number patterns	Integers & Rational Numbers 1.11.1 Make comparison between and order integers and rational numbers with less reliance on the number lines 1.11.2 Add, subtract, multiply and divide integers 1.11.3 Add, subtract, multiply and divide decimal fractions 1.11.4 Add, subtract, multiply and divide common fractions 1.11.5 Significant figures as a means of approximation

Scope of Work Grades 7-9

Prerequisites	Grade 7	Grade 8	Grade 9
Number (cont'd)	1.2 Fractions	1.6 Number Bases	1.12 Indices
	 1.2.1 The idea of a fraction 1.2.2 Fractions as the result of division 1.2.3 Equivalent fractions 1.2.4 Mixed Numbers 1.2.5 Computation using fractions 1.2.6 Ordering fractions 	1.6.1 The arithmetic operations of addition, subtraction and multiplication on numbers written in base 2 and 5 1.6.2 Conversion of numbers written in base 2 and base	1.12.1 Index as an indication of repeated multiplication 1.12.2 The index notation 1.12.3 Multiplication of numbers in index form 1.12.4 Powers on the calculator
	1.3 Percentages	5 to base 10 and vice versa	1.13 Standard Form
	1.3.1 Find the given percent of a whole number 1.3.2 Express one	1.7 Common and Decimal Fractions and Percentages	1.13.1 Understand the need for standard form (by
	quantity as a percentage of another	1.7.1 Rounding off to a given number of decimal places	observation on the calculator) 1.13.2 Write numbers greater than 10 in
	1.4 Sets 1.4.1 The language of	1,7.2 Estimate the results of computations with decimals, fractions	standard form stating the degree of accuracy
	sets 1.4.2 Types of sets 1.4.3 Use of symbols 1.4.4 Venn diagrams	and percentages 1.7.3 Conversion between common fractions, decimal fractions and percentages	
		1.7.4 Concept of fractions as ratios	

Scope of Work Grades 7 - 9

Prerequisites	Grade 7	Grade 8	Grade 9
Number (cont'd)		1.8 Use of Calculator	1.14 Ratio
		1.8.1 Using the calculator to solve real	1.14.1 Comparison of two quantities as a ratio 1.14.2 Solve problems
		problems 1.8.2 Assessing the reasonableness of an answer given	which involve ratio 1.14.3 Identify quantities in proportion
		by a calculator 1.8.3 Investigating number patterns	1.15 Computers
		using a calculator	1.15.1 Difference between a computer and a calculator
		1.9 Square Numbers and Square Roots	1.15.2 Parts of a computer 1.15.3 Difference between hardware and
		1.9.1 (Figurative) number patterns 1.9.2 Square numbers	software 1.15.4 Spreadsheets, databases, statistics
		1.9.3 Square roots of perfect squares 1.9.4 Squares and square roots on the calculator	programmes, maths software, games and simulation
			1.16 Venn Diagrams
		1.10 Venn Diagrams	1.16.1 Sorting sets from data given in verbal
		1.10.1 Sorting sets from data given in verbal form 1.10.2 Using Venn	form (3 or more) 1.16.2 Illustrating information by using Venn
		diagrams to illustrate data 1.10.3 Obtaining data from Venn	diagrams 1.16.3 Obtaining information from Venn diagrams (3
		diagrams	or more

Scope of Work Grades 7-9

Prerequisites	Grade 7	Grade 8	Grade 9
2. Measurement	2.1 The need for	2.8 Area of a Triangle	2.11 Volume
	measuring and		
Use of informal and	recording	2.8.1 Estimate areas by	2.12.1 Find the volume of
non-standard units		counting squares	prisms
Concepts of "how	2.2 What is measured	2.8.2 Discover the	2.12.2 Convert from one
much", "as many as",	2.2.1 Length	formula for the	metric unit of
"the nearest"	2.2.2 Mass	area of a triangle	volume to another
Basic comparison - e.g.	2.2.3 Temperature	(A=1/2bh)	2.12.3 Estimation and
longer, shorter, bigger, smaller	2.2.4 Time	2.8.3 Use the formula to solve problems	calculation of the volume of
Distinction between			composite shapes
counting and measuring	2.3 How to Measure -		
, g	Estimation	2.9 Circumference of	
		a Circle	2.12 Area
	2.3.1 Need for standard	1 0200	
	Unit	2.9.1 Investigate the	2.13.1 Derive and use the
	2.3.2 Units of Measure	relationship	formulae for area of
	2.3.3 Estimating and	between the	parallelogram and
	measuring	diameter and the	trapezium
	quantities	circumference	2.13.2 Calculate the area
	2.3.4 Measuring	2.9.2 Establish the	of composite
	instruments	relationships	shapes
		$C=\pi d$ and $C=2\pi r$	2.13.3 Problems
			concerning surface
	2.4 Perimeter	i	area of solids
		2.10 Area of a Circle	
	2.4.1 Measuring		
	distances	2.10.1 Investigate the	
	around regular and	relationship	
	irregular figures	between the	
	2.4.2 Calculating	radius and the	
	perimeter of	area	
	regular figures	2.10.2 Establish the	
		relationship,	
		$A=\pi r^2$	
			ı
			!

Scope of Work Grades 7 - 9

Prerequisites	Grade 7	Grade 8	Grade 9
Prerequisites Measurements (cont'd)	2.5 Area as a measure of surface 2.5.1 Area of basic shapes 2.5.2 Estimation and calculation of area of basic shapes 2.6 The idea of volume 2.6.1 Volume as space occupied 2.6.2 Principle of conservation of volume 2.7 Measurement —	2.10 Metric Units of Area, Volume, Capacity 2.11.1 Appropriate units to measure and express area, volume and capacity 2.11.2 Changing between different units of measurement 2.11.3 Volume of cubes and cuboids by counting unit cubes 2.11.4 Establish the formula for the volume of a	Grade 9
	2.7.1 Applying measurement in a problem-solving context 2.7.2 Calculations involving measurements using both pencil and paper as well as the calculator 2.7.3 Understand the degree of accuracy of a measurement	formula for the	

Scope of Work Grades 7 - 9

	Prerequisites	Grade 7	Grade 8	Grade 9
3.	Geometry	3.1 Basic Geometric	3.7 Measurement of	3.14 Enlargement and
		Concepts	Angle	Scale Drawing
•	The Basic Shapes	lass Brown	2 5 4 11-2	2 14 1 Draw a figure
•	Matching Shapes	3.1.1 Point, line segment,	3.7.1 Use a protractor to	3.14.1 Draw a figure enlarged to a given
•	Concept of "identical	ray, plane, surface	measure an angle	scale factor from a
	to"		3.7.2 Use a protractor to	given point
		2.2 C-1:4-	draw an angle of	3.14.2 Draw and interpret
		3.2 Solids	any given size	scale drawings
		3.2.1 The idea of a solid		3.14.3 Interpret a scale as
		3.2.2 Solids in the	3.8 Types of Angles	a ratio
		environment		
		3.2.3 Characteristics of	3.8.1 Angles when lines	3.15 Sketching Solids
		regular solids	meet - corresponding,	5,15 BROWNING COINGS
		3.2.4 Nets of solids 3.2.5 Classification of	alternate,	3.15.1 Perspective and
		solids	vertically opposite,	hidden lines
		301143	co-interior	3.15.2 3-dimensional
			3.8.2 Sum of angles -	sketch of solid
		3.3 Movement	supplementary,	3.15.3 2-dimensional
		THE TRANSPORT	complementary,	sketches of
		3.3.1 Reflection	angles at a point	different views of
		3.3.2 Congruence		solids
		3.3.3 Strip patterns		
1		3.3.4 Area (textile)	3.9 Triangles	
		patterns		
			3.9.1 Right-angled	
			triangles	
		3.4 Plane Shapes	3.9.2 Isosceles triangles	
			3.9.3 Equilateral	
1		3.4.1 Irregular shapes	triangles	
		3.4.2 Irregular polygons	3.9.4 Scalene triangles	
		3.4.3 Regular shapes -		
		quadrilaterals,		
		circles, (including		
		concepts of centre, radius, chord)		
		1		
		symmetry		
		1		-
		1		
1				
1				
1				

Scope of Work Grades 7 - 9

Prerequisites		Grade 7		Grade 8		Grade 9
Geometry (cont'd)	3,5	Angles	3,10	Sum of Angles of	3.16	Types of
	<u>-</u>			Polygons		Quadrilateral
	3,5,1	Concepts of an				
	1253	angle	3.10.1	Prove that the	3,16,1	Distinguish by
	3.5.2	Identify the type of		sum of angles of		considering the
		angle by		a triangle sum		number of lines of
		observation [acute, obtuse, right,	2 10 2	to 180°		symmetry - square,
		reflex)	3,10,2	Show that any quadrilateral		rectangle, rhombus, parallelogram,
	3.5.3	Identify the type of		comprises of two		kite, trapezium
	-1.01.0	angle given its size		triangles and thus	3.16.2	Properties of
		in degrees		its angle sum is	0,10,2	diagonals of each
	3.5.4	Angles on a straight		360°		type of quad-
		line	3.10.3	Generalize for a		rilateral
	3.5.5	Estimate the size of		polygon's angle		
		an angle		sum		
			3.10.4	Calculate	3.17	Geometric
		:		unknown angles		Construction
	3.6	Straight, Parallel		in given		
	İ	and Perpendicular		diagrams and	3.17.1	Construction of
	2	Lines		problems		triangles using
	3,0,1	Identify straight,				ruler, a pair of
		parallel,	2 1 1	The Circle		compasses and
		perpendicular and intersecting	3.11	The Circle	2 17 3	protractor
		lines	2 11 1	Use a pair of	3.17.2	Construct angles of 90° and 60°
		IHICS	3.11.1	compasses	2172	Construct parallel
				to construct a	3.17.3	and perpendicular
		;		circle of given		lines
				radius	3.17.4	Construction of
			3.11.2	The concepts of	_,_,	bisectors of a line
				arc, sector,		and angle
				segment of a		(including right
				circle		angle)
					3,17,5	Relate 3.17.4 to
						properties of
			3,12	Solids		rhombi
			3.12.1	Draw the nets of		
				prisms and	3.18	The Circle
				ругатіds		
	1		3.12.2	Construct solids	3.18.1	Area of a sector of
				from nets	2 10 5	a circle
						Length of an arc
				į	3.15.3	Perimeter of a
						sector

Scope of Work Grades 7-9

Prerequisites	Grade 7		Grade 8		Grade 9
Geometry (cont'd)		3,13	Transformations	3.19	Pythagoras' Theorem
		3.13.1	Translation		7110070111
			Rotation	3.19.1	Proof of
		3.13.3	Draw an object		Pythagoras'
			and its image	1	Theorem using area
			given its		method
			transformation	3.19.2	Using the theorem
		3.13.4	Assess the transformation		to solve problems
ĺ			given an object		
			and its image	3.20	Trigonometric
		3 13 5	Similarity	3.20	Ratios
		5,15,5	Similarity	ļ	Radios
				3.20.1	Solve surveying
					problems by scale
					drawing - angles
į					of elevation and
į				3 20 2	depression Establish, by using
				3,20,2	a calculator, that
·					the ratio of two
					sides in a right-
					angled triangle are
					the same if the
					angles do not
		ĺ			change but the
ľ					length of the sides
					increase or
				3 20 2	decrease Introduce the
				3.20.3	trigonometric ratios
					- sine, cosine,
					tangent
•					

Scope of Work Grades 7 - 9

<u>L</u>	Prerequisites	Grade 7	Grade 8	Grade 9
4.	Statistics	4.1 Simple Tables	4.4 Representation of	4.7 Representation of
			Data	data - grouped data
•	Tallying/counting	4.1.1 Collecting		
		information	4.4.1 Line graphs	4.7.1 Histogram
İ		4.1.2 Recording	4.4.2 Collect and	4.7.2 Frequency Polygon
		information	organize data	4.7.3 Discuss when
			4.4.3 Choose and	grouping data is
			construct an	appropriate
		4.2 Simple Diagrams	appropriate graph	4.7.4 Choose and
		434 Bi	for collected data	construct an
		4.2.1 Pictograph	4.4.4 Read and interpret	appropriate graph for
		4.2.2 Bar Chart	data given	collected grouped
		4.2.3 Pie Chart	graphically	data
		,		4.7.5 Read and interpret
		4.3 Probability	4.5 Mode, Median and	grouped data given
		4.5 Probability	, , ,	graphically
		4.3.1 Simple predictions	Mean	
		4.3.2 Concept of	4.5.1 Discuss the idea of	4.8 Mode, Median and
		expectation	an average as a	Mean
		Спросинон	representative	IVICAII
			value	4.8.1 Finding mode,
			4.5.2 Find the mode,	median and
			median and mean	mean from
			from raw data	frequency table
			4.5.3 Discuss the	4.8.2 Use of the three
			appropriate use of	values to describe
			each of the three	and interpret
			averages	information
			4.6 Probability	4.9 Probability
			4.6.1 Simple	4.9.1 Discuss the meaning
			experiments	of probability
			4.6.2 Basic probability	4.9.2 Carry out
			values	experiments to
			varues	determine
				probability
				4.9.3 Use fractions and
				percentages to
				describe
				probabilities
				4.9.4 Interpret a
		1		probability given as
				a fraction or
				percentage

Scope of Work Grades 7-9

Prerequisites	Grade 7	Grade 8	Grade 9
5. Algebra	5.1 Rules and Flow Charts	5.6 Mappings	5.8 Simplification
Number Patterns Use of a letter to represent an unknown quantity	5.1.1 Showing methods and rules in flow diagrams 5.1.2 Follow instructions given in a flow diagram 5.2 Generalizing the rules of Arithmetic	 5.6.1 Draw a mapping of a given relationship 5.6.2 Construct tables for given mappings 5.6.3 Identify one-to-one mappings and the rule of a mapping 	5.8.1 Algebraic techniques for simplifying expressions - addition, subtraction, multiplication, division, powers, brackets 5.8.2 Simple factorization 5.8.3 Change subject of simple formulae
	5.2.1 Making rules from knowledge of arithmetic operations 5.2.2 Multiplication as repeated addition 5.2.3 Addition and subtraction	 5.7 Equations 5.7.1 Write equations to illustrate story problems 5.7.2 Write problems which give rise to simple equations 	5.9 Simultaneous equations 5.9.1 Solution of simultaneous equations by substitution 5.9.2 Solution of
	of like and unlike terms 5.3 Using rules - finding the unknown	5.7.3 Solve equations using flow diagrams and algebra (increase level of difficulty) 5.7.4 Simple literal	simultaneous equations by elimination 5.10 Inequalities
	5.3.1 Using formulae generated by students 5.3.2 General principles of substitution in	equations	5.10.1 Write inequalities to illustrate story problems 5.10.2 Write simple problems which give rise to simple inequations
	formulae using flow diagrams		5.10.3 Solve simple inequations using number line and algebra 5.10.4 Illustrate inequations with two variables on the coordinate plane

Scope of Work Grades 7-9

Prerequisites	Grade 7	Grade 8	Grade 9
Algebra (cont'd)	5.4 Terminology		
	5.4.1 The concept of		
	variables, terms,		
	expressions,		
	equations and		
	operations		
	5.5 Equations		
	5.5.1 Write equations to		
	illustrate story		
	problems		
	5.5.2 Write simple problems which		
	give rise to simple		
	equations		
	5.5.3 Solve simple		
	equations using flow diagrams and		
	algebra		
	ļ		
	1		

Scope of Work Grades 7-9

Scope of Work Grades 7-9

7. Graphs 7. Coordinates 7. Graphs 7. Coordinates 7. From Mappings to Graphs 7. Coordinates as ordered pairs 7. Plotting points on the plane 7. Connecting points to form patterns 7. Connecting points to form patterns 7. Simultaneous Equations 7. Write down a pair of equations on a story 7. Simultaneous Equations 7. Simultaneous Equations 7. Caphing inequalities 7. Graphs 7. Quadratic Graphs 7. Quadratic Graphs 7. Quadratic Graphs 7. Coordinates as set of ordered pairs 7. Plotting the ordered pairs of a mapping as a graph 7. Caphing inequalities 7. Simultaneous Equations 8. Simultaneous Equations 9. Simultan

SUMMARY OF CONTENT

The Grades 7-9 Mathematics Programme has been divided into seven strands.

1. NUMBER

The study of numbers and number systems and the application of number properties and the four basic operations in problem-solving situations. The use of the language of sets and the ability to integrate this into the rest of the curriculum. The proper use of the calculator and computer.

2. MEASUREMENT

What it means to measure, how to measure, and the necessity for standard metric units of length, area, volume, capacity, mass, temperature and units of time.

3. GEOMETRY

An understanding of fundamental geometric concepts, which give a reference system for conceptualizing real world situations and objects and a vocabulary to describe the environment.

4. STATISTICS

The collection of data, its meaningful representation, analysis and interpretation. Making predictions, performing experiments, exploring probabilities.

5. ALGEBRA

The structure of albegraic properties and expressions. The application of the four operations in the solution of equations and in-equations.

6. CONSUMER ARITHMETIC

The various calculations involved in financial transactions. The roles and responsibilities of the consumer in everyday life.

7. GRAPHS

Representation of algebraic relations by means of graphs. Drawing, reading and interpreting such graphs.

CALCULATORS IN THE CLASSROOM

Calculators are widely used in Jamaica. Unfortunately many students have calculators which they are unable to use properly at their grade level.

It is therefore vital that the proper guidance be given in the mathematics classroom in regards to the calculator's use.

The increased open and guided use of the calculator can ensure that children's experiences in mathematics are relevant to real life. It can help them to develop their reasoning skills and promote their understanding and application of mathematics inside the classroom.

Meaningful use of the calculator – how and when to use it – enables the student to understand mathematics as problem-solving, not just operations on endless numbers. It also brings into sharp focus the need for the skill of estimation and the ability to decide if the solution to a problem is reasonable or not.

While all problems are not numerical in nature, many mathematical problems are, and students need to make decisions about calculation procedures. The calculator removes the burden of difficult computation, and students should be encouraged to use it to:

- (a) develop and reinforce skills of estimation and computation
- (b) investigate number patterns
- (c) investigate mathematical ideas
- (d) perform difficult computations

It must be strongly emphasized however, that the calculator is not a replacement for the learning of basic mathematical facts and performing mental computation, therefore, there will be times when the knowledge of basic facts will be tested, especially in Multiple Choice, when the use of calculators will likely be prohibited.

RESOURCE MATERIALS AND EQUIPMENT

"Instructional materials are as essential for the mathematics teacher as spices for the chef. They are necessary extra ingredients that make teaching and learning mathematics a pleasant, satisfying experience."

(Aichele, 1971)

The availability of materials and equipment for mathematics classes is an important factor in the success of any mathematics programme. Pencils, rulers, protractors, etc. should always be available for use by the teacher and students. It is advisable that such materials be kept in a box if other storage facilities are unavailable. However, each school should establish its own guidelines as to the storage, organization, distribution and replacement of materials.

The newspapers are a rich source of mathematics and publications such as the Money Index offer a bounty of colourful graphs. Scrap books/files could be useful for displaying charts and samples of students' work. Old materials should be replaced at regular intervals.

Teachers are encouraged to make appropriate instructional aids to support their lessons. To this end, discarded, indigenous and other locally obtainable materials can be used to good effect.

In order to teach this programme successfully, the following is a recommended list of teacher and student resource materials.

Teacher Materials

Resource Books

- 1. <u>Mathematical Activities</u>. A resource book for teachers Brian Bolt Cambridge University Press (1984)
- <u>Teaching Secondary School Mathematics</u> Posamentier and Stepelman Merrill Publishing Company (New Edition)
- Mathematical Dictionary R. E. J. Abdelnoor Thomas Nelson & Sons (1989) (OR any similar book)

One (1) set of each of the following suggested textbooks:
 Oxford Mathematics for the Caribbean, Books 1, 2 and 3
 V. Bent et al. Oxford University Press (1988 or newer edition)

ST (P) Caribbean Mathematics, Books 1 2 and 3 (2nd Edition) Stanley Thornes (Publishers) Ltd. (1998)

Mathematics for Caribbean Schools, Books 1, 2 and 3 (2nd Edition)
A. Foster, T. Tomlinson et al. Longman Caribbean (1998)

Fundamental Mathematics for the Caribbean, Books 1, 2 and 3 A. N. Binks, C. Lutchman et al. Heinemann (1996)

Teaching Aids

- 1. One (1) set mathematical instruments for use on the chalkboard.
- 2. Metre sticks
- 3. Measuring tape
- 4. One (1) set metric weight (1g 1000g)
- 5. One (1) set liquid measures (100ml 1000ml)
- 6. Wall thermometer
- 7. Stop watch
- 8. Graph board
- 9. Geoboard
- 10. Geometric solids (wooden)
- 11. Calculator
- 12. A supply of cartridge paper (many colours)
- 13. Markers
- 14. Lettering stencils
- 15. Computers and appropriate software including Internet connections (wherever appropriate)

GOVERNMENT OF JAMAICA/ WORLD BANK REFORM OF SECONDARY EDUCATION (R.O.S.E)

CURRICULUM GUIDE

SCIENCE

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Curriculum Guide - Science

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CURRICULUM GUIDE - SCIENCE SECTION

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CURRICULUM GUIDE - SCIENCE SECTION

PHILOSOPHY

The Grades 7- 9 Science Curriculum seeks to provide for all students, a basic understanding in science and technology that will serve as a foundation for further learning, as well as assist them to become functionally literate in science and technology. It seeks to develop in students, an ability to apply scientific principles in their everyday lives. This is achieved through providing students with hands-on, process-oriented experiences, which stimulate their minds. They are also helped to work and think in a scientific way, through activities which have them identifying problems, suggesting solutions and testing their hypotheses.

The curriculum is designed to respond to the needs of a variety of students, because it is realized that many students who have reading difficulties and are categorized as slow learners, may have no other disability but the inability to read the written word.

The curriculum takes into consideration, the fact that many of the skills needed to learn to read and perform in other subjects, are provided through the experiences in science.

Research has shown that science and technology experiences can be therapeutic, and so meet the social, psychological and other needs of all children – challenged, exceptional and normal. Activities in this curriculum are designed to help students work cooperatively in groups as they investigate, so that all students can benefit from the experiences.

Altogether, the basic philosophy of this curriculum is to make all students scientifically and technologically literate. Not only will it benefit the students, but it will also benefit the nation. Education in science and technology is important, not only for the social, psychological and economic development of the individual, but of the nation as a whole.

RATIONALE

Science is a **process** for producing knowledge. The Grades 7-9 Science Curriculum take this into account, and provides students with experiences which give them the opportunity to think and work in a scientific manner. Relying on evidence and the use of theories and hypotheses, students strive to make sense of observations and phenomena by inventing explanations.

The opportunities for investigations, and for using critical thinking skills, which are provided in this curriculum, are designed to help all students to:

- (a) understand the basic and important concepts and principles of science, for application in everyday life;
- (b) handle materials and instruments and carry out simple scientific procedures;
- show an awareness of some of the important links between science, mathematics and technology;
- (d) realize that although science and technology can help to solve problems, they also have their limitations;
- (e) understand and apply technical concepts and skills for everyday life;
- (f) demonstrate a capacity for scientific ways of thinking, in making decisions related to individual and group issues;
- (g) develop an awareness of, and concern for, the physical and social environment, and the role of humans in that environment;
- (h) recognize the contribution that each person can make for the improvement of the community, country and world.

Science is a core subject in the curriculum. The skills and processes which are developed in science classes, through the hands-on, minds-on, process-oriented approach which is promoted, are integral to the learning of most other subjects. Problem-solving skills, for example, are developed through a variety of activities, and these skills are encouraged in all other disciplines of the total curriculum.

In science, students are given opportunities to write and talk, as well as develop handson, process skills, which are important in learning to read and write. The subject therefore contributes to the development of the language arts. Science sets out to develop an informed citizenry; it addresses social issues and ensures that students are taught to understand, appreciate and appraise, the impact of science and technology on society. In this way, it links with and supports, the social studies component of the curriculum. Science also shares common leaning experiences with visual arts, and the elements of resource an technology. These include hands-on, participatory experiences and observations – using all the senses, the recognition of patterns, as well as problemsolving and critical-thinking skills.

AIMS OF THE SCIENCE CURRICULUM

The need to provide quality education, and equality of educational opportunities, to all secondary students, including those in the All-Age schools, is the basis for developing this Science Curriculum.

The Curriculum is intended to articulate between primary (Grade 6), and upper secondary (Grade 10 and above), as well as satisfy the wide range of academic abilities and literacy/numeracy skills among the Grades 7 to 9 students, in the various secondary institutions in our educational system.

The assumption that some students coming into the Grade 7 have not followed the Ministry's Primary Level Science Curriculum, especially at Grades 4 to 6, has lead to the restating of many of the concepts and skills addressed in that curriculum. This Grade 7-9 Curriculum has also been written to ensure that the student leaving Grade 9 should have a sufficient scientific base to move into academic, vocational or any other chosen area which require basic science content and skills.

Leaving school/employment SSC or unemployment JSC - Biology or General CXC Single Science Award Integrated Science, Basic or General New Secondary CXC Biology, Grades 10 & 11 Chemistry, **Physics** Science at the Grades 7, 8 and 9 Primary Level . Science Curriculum Grades 1 - 6 High School Grades 10 - 13 CXC Double Award Integrated Comprehensive High Science or Grades 10 & 11 Agriculture Technical High GCE Biology, Grades 10 - 11 Chemistry, Biology Vocational GCE Human & Social Biology VARIED LEVELS VARIETY OF SECONDARY EDUCATION SCIENCE EXAMINATIONS

Grades 7 - 9 Science Curriculum 'In Context'

CURRICULUM GUIDE - SCIENCE SECTION

AIMS OF THE SCIENCE CURRICULUM (continued)

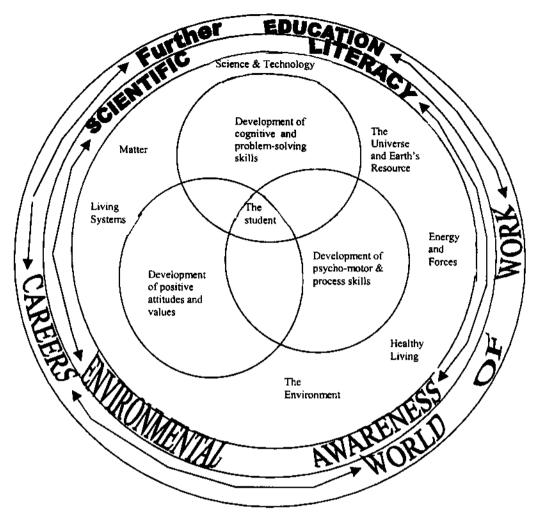
The Curriculum aims to have students:

- 1. Achieve scientific literacy by
- (i) exploring the scientific approach in resolving problems
- (ii) becoming conversant with the scientific meaning of familiar words in science, and
- (iii) realizing that language skills are utilized in communicating scientific information
- 2. Develop critical thinking and process skills, by using teaching methodologies including group work which stress hands-on, minds-on activities, that encourage the development of these skills. These skills run across other subject areas.
- 3. Develop science and technology awareness by utilizing designing and modelbuilding activities, which encourage the students to make/construct physical representations of scientific concepts.
- 4. See the importance of their individual roles in protecting the environment.
- 5. Develop an awareness of the wide range of career options available to people with scientific skills, and also the increasing need for scientific skills in our technology-oriented world.

It is expected that by exposure to this curriculum, the student should, at the end of Grade 9, be sufficiently prepared to select from a variety of career paths, to pursue further education, or to enter the field of work.

The diagram on the following page illustrates the perceived relationship between the themes (inputs) and aims (expected outcomes) of the curriculum.

A General Perspective of the Grades 7 - 9 Science



CURRICULUM GUIDE - SCIENCE SECTION

CURRICULUM GUIDE - SCIENCE SECTION

CONTENT SUMMARY FOR GRADES 7-9 SCIENCE SYLLABUS

THEME 1 THEME 2 THEME 3			
EXPLORING THE	INVESTIGATING MATTER	LIVING SYSTEMS	
ENVIRONMENT			
UNIT 1 – Introduction to Science	UNIT 2 - Grouping Things	UNIT 3 - Living Things and how they	
		reproduce	
1.1 Science In Everyday Life	2.1 Why Group Things?	3.1 Gross Structure & Function of the Flowering Plant	
1.2 Working Like a Scientist	2.2 Grouping Things into Living & Non-Living	3.2 Structure & Function of Floral Parts	
1.3 Safety Precautions in Exploring the Environment	2.3 Grouping Living things into Plants and Animals	3.3 Sexual Reproduction in Flowing Plants	
1.4 Using our Senses to Explore the Environment	2.4 Grouping Plants	3.4 Reproduction without Seeds	
1.5 Using instruments & Equipment to extend the use of our Senses	2.5 Grouping Animals	3.5 Seed Structure & Germination	
	2.6 Grouping Non-Living Things into Solids, Liquids, Gases	3.6 Sexual Maturity and Reproduction in Humans	
UNIT 7 - Water & Living Things	UNIT 8 - Units Of Matter	UNIT 9 - Energy Flow Through Living Systems	
7.1 Water as a Major Component of Plants & Animals	8.1 The Particulate Nature of Matter	9.1 How Plants use Radiant Energy to make Food	
7.2 Water as a Habitat	8.2 The Basic Unit of Living Things – The Cell	9.2 Food Energy Chains and Webs	
7.3 Living Things Need Water	8.3 Body Systems	9.3 Food Intake, Digestion & Absorption in Animals	
		9.3 Energy Release through Respiration	
UNIT 13 - Sensing & Responding to our Environment	UNIT 14 – More about Matter	UNIT 15 - Transport in Living Things	
13.1 The Sense Organs	14.1 Pure & Impure Matter	15.1 Transport Systems in Plants	
13.2 The Central Nervous System	14.2 Molecules and Ions	15.2 Transport System in Animals	
13.3 The Endocrine System	14.3 Physical & Chemical Changes	15.3 Diseases of the Circulatory System	
	14.4 Elements, Mixtures & Compounds		
	14.5 Metals & Non-Metals		
	14.6 Acids, Bases & Salts		

CONTENT SUMMARY FOR GRADES 7 - 9 SCIENCE SYLLABUS

THEME 4	THEME 5	THEME 6
HEALTHY LIVING	ENERGY AND LIFE	THE UNIVERSE & THE EARTH'S
TIMITE A TO THE TOTAL OF		RESOURCES
UNIT 4 ~ Responsible Living	UNIT 5 – Energy	UNIT 6 – Our Place in the Universe
4.1 Sexually Transmitted Diseases	5.1 Forms of Energy & energy	6.1 Our Place in the Universe
	Conversion	
4.2 Drugs – Use and Abuse	5.2 The Sun as the Ultimate Source of Energy	6.2 Earth and the Solar System
	5.3 Fuels and their Uses in the Home, Community, Industry and Nation	
	5.4 Energy Conversion in the Home and Community	
UNIT 10 - Keeping Healthy	UNIT 11 - Energy in the Home	UNIT 12 - The Resources - Water and Air
10.1 Food and Health	11.1 Heat Transfer	12.1 Sources of Water
10.2 Cleanliness, Exercise, Rest and Health	11.2 Investigating Static Electricity	12.2 Transport in Water and Air
10.3 Safety and Health	11.3 Electricity in the Home	12.3 Uses of Water
	11.4 Electricity, Electronics and Magnetism	12.4 Gases in the Air
	11.5 Safe use of heat and electricit	12.5 Water and Air Pollution
UNIT 16 - Pregnancy and Health	UNIT 17 – Forces and Motion	UNIT 18 - More about the Earth's Resources
16.1 Embryo Development and Birth	17.1 Pushes and Pulls	18.1 Rocks and Minerals
16.2 Pregnancy and Health	17.2 Mechanical Movements in Land, Water and Air	18.2 Soils and soil conversion
16.3 Birth Control Methods	17.3 Measuring Forces	18.3 Forest and Wildlife and their Conservation
	17.4 Locomotion in Animals	Conscivation

UNIT AIMS and GENERAL OBJECTIVES for GRADES 7 – 9

GRADE 7

Unit 1 Introduction to Science

Aims This unit is designed to help students:

- (1) understand the meaning of science & technology
- (2) be aware that both the senses and instruments can be used to explore environment
- (3) appreciate the range and limitations of what can be observed with the senses only
- (4) be aware of the usefulness of working in a scientific manner in problem-solving
- (5) begin using the skills and thinking processes associated with the practice of science
- (6) understand that safety precautions are necessary in exploring the environment

1.1 Science in Everyday Life

General Objectives Students should be aware of what is involved in studying science, and how science and technology affects everyday life.

1.2 Working like a Scientist

General Objectives Students should:

- (1) appreciate the importance of scientific methods the way in which scientists work.
- (2) be aware that scientific methods involve working in a systematic way.

1.3 Safety Precautions in Exploring the Environment

General Objectives Students should:

- (1) demonstrate a willingness to practise safe procedures, in order to take care of self and others
- (2) be aware of special procedures to be taken when using equipment and material to find out about the environment.

1.4 Using our Senses to explore the Environment

General Objectives Students should:

- (1) understand how the senses can be used to explore the environment
- (2) be aware of the value of the sense organs to humans and other animals

1.5 Using instruments and Equipment to Extend the Use of the Senses

- (1) appreciate that the human senses are limited in range and accuracy and so instruments are used to extend our powers of observation and measurement
- (2) understand the importance of measurement

Unit 2 Grouping Things

Aims This unit seeks to help students:

- (1) appreciate the need to group or classify a wide variety of living and non-living things
- (2) realize that classification schemes are man-made and that the same things can be grouped in different ways
- (3) appreciate the need to show concern for both living and non-living things in studying the environment

2.1 Why Group Things?

General Objectives Students should:

- (1) realize that the same objects can be grouped in different ways depending on the purpose
- (2) appreciate that grouping is an economical way of organizing objects

2.2 Grouping Things into Living and Non-living

General Objectives Students should:

- (1) understand that all living things have a set of characteristics that are unique, which are used to distinguish them from non-living things
- (2) understand that there is need to show concern for the care and preservation of living and non-living things in our environment

2.3 Grouping Living things into Plants and Animals

General Objectives Students should:

- (1) appreciate the wide variety of living things and how animals and plants differ
- (2) show concern for plants and animals in the environement

2.4 Grouping Plants

General Objective Students should be aware of the wide variation of plants.

2.5 Grouping Animals

General Objectives Students should be aware of the wide variation of animals.

2.6 Grouping Non-living Things into Solids, Liquids, Gases, including change – of-state

- (1) understand that matter can be solid, liquid or gas
- (2) appreciate that the same substance can be a solid, a liquid or a gas depending on the temperature, for example, water (at particular pressures e.g. atmospheric).
- (3) appreciate that the stages in the water cycle demonstrates changes in the state of water.

Unit 3 Living things and How they Reproduce

Aims This unit seeks to help students:

- (1) demonstrate knowledge of the gross structure in flowering plants.
- (2) understand the processes by which life is perpetuated (varied methods of reproduction)
- (3) appreciate the importance of plants to the environment and various sectors in the society.

3.1 Gross Structure of Flowering Plant

General Objectives Students should appreciate that all flowering plants have similar basic features

3.2 Structure and Function of Floral Parts

General Objectives Students should appreciate that each part of the flower has an important function

3.3 Sexual reproduction in Flowering Plants

General Objectives Students should:

- (1) appreciate why plants need to reproduce
- (2) understand the importance of flowers to flowering plants
- (3) be aware of the need to care for flowers
- (4) appreciate the importance of discontinuing the indiscriminate destruction of young fruits

3.4 Reproduction without Seeds

General Objectives Students should:

- (1) appreciate that plants can reproduce without seeds (vegetative reproduction)
- (2) appreciate that plants need care at all stages of their growth.

3.5 Seed Structure and Germination

General Objective Students should demonstrate an understanding of how plants result from the germination of seeds

3.6 Sexual Maturity and Reproduction in Humans

- (1) appreciate the significance of the changes that occur during growth, especially during adolescence
- (2) be aware of the structure and functions of the reproductive systems
- (3) appreciate that the characteristics that make an organism unique are determined by the make-up of the sperm (male cell/gamete) and the egg (female cell/gamete) from the parents.

Unit 4 Responsible Living

Aims this unit seeks to help students:

- (1) appreciate that lifestyles are important in determining their present and future health and happiness
- (2) be willing to discuss personal aspects of their lives in order to gain help in setting positive values and improving their interactions with others

4.1 Sexually Transmitted Diseases

<u>General Objective</u> Students should appreciate the contribution of responsible sexual behaviour to health and happiness.

4.2 Drugs – Use and Abuse

General Objective Students should appreciate that all drugs should be used only as prescribed and that some drugs can be harmful.

Unit 5 Energy

Aims This unit is designed to help students:

- (1) appreciate the importance of energy in everyday life
- (2) be aware of the various forms of energy and how they change from one form into another
- (3) appreciate how energy can be used and conserved
- (4) appreciate the importance of conservation of energy

5.1 Forms of Energy and Energy Conversions

General Objectives Students should:

- (1) know that there are different forms of energy and that one form can change into another
- (2) appreciate the world's dependence on various forms of energy for all activities
- (3) understand that energy is not 'used up' when a job is done or an appliance is used; it is just converted from one form into another

5.2 The Sun as the Ultimate Source of Energy

General Objective Students should appreciate that the sun is the ultimate source of energy on earth.

5.3 Fuels and their Uses in Home, Community, Industry, Nation

General Objective they are 'burned'. Students should appreciate that fuels 'release' energy when

5.4 Energy Conservation in the Home and Community

General Objective Students should appreciate the need to conserve energy in the home.

Unit 6 Our Place in the Universe

Aims This unit seeks to help students appreciate the place of the Earth in the universe.

- 6.1 Overview of the Universe

 General Objectives Students should appreciate the vastness of the universe.
- 6.2 Earth and the Solar System

 General Objectives Students should be aware of the position of the Earth in the Solar System.

GRADE 8

Unit 7 Water and Living Things

Aim This unit seeks to develop in students an appreciation of the importance of water for life

7.1 Water as a Major Component of Plants and Animals

General Objectives Students should:

- (1) understand that the major components of the structure of plants and animals is water
- (2) appreciate the importance of water to living things
- (3) develop a positive attitude to the use of water in everyday life

7.2 Water as Habitat

General Objective Students should know that the properties of water make it a suitable home for a variety of plants and animals.

7.3 Living Things need Water

General Objectives Students should understand that the nature of water as a fluid makes it a suitable medium for transporting substances through the bodies of living things.

Unit 8 Units of Matter

Aims This unit seeks to help students to:

- (1) appreciate that all living and non-living things are made of Units of Matter.
- (2) be aware that the structure of these units determine the characteristics of living and non-living things.

8.1 The Particulate Nature of Matter

General Objectives Students should appreciate that all things are made up of very small particles combined in different ways.

8.2 The Basic Unit of Living Things - the Cell

- (1) know that the cell is the basic structure and functional unit of all living things
- (2) be aware that the main difference between living and non-living things is that the basic unit of the living thing has a control centre which allows it to duplicate itself and respond to changes in the environment; while in a non-living system there is no such control and duplicating mechanism.

8.3 Body Systems

General Objectives Students should know that cells, tissues, organs and systems form an integrated hierarchical pattern in plants and animals.

Unit 9 Energy Flow though Living Systems

Aims This unit is designed to help students:

- (1) understand that energy from the sun sustains life on earth.
- (2) demonstrate an appreciation of the interdependence of plants and animals.
- (3) understand that energy is ultimately released in cells for use by the organism.

9.1 How Plants use Radiant Energy to Make Food

General Objectives Students should understand that plants use radiant energy in making food containing chemical energy.

9.2 Food and Energy Chains and Webs

General Objectives Students should:

- (1) know that plants are the only organisms that can use the sun's energy directly (to make food).
- (2) understand that animals depend on plants for their energy supply.

9.3 Food Intake, Digestion and Absorption in animals

General Objectives Students should understand that the food which animals eat goes through a number of processes before reaching the cells and the energy from the food is utilized by the cells.

9.4 Energy Release through Perspiration

General Objectives Students should:

- (1) know that respiration is the process by which the cell obtains energy from food.
- (2) appreciate that energy is lost as it flows through any system.

Unit 10 Keeping Healthy

Aim This unit is designed to help students appreciate that the individual is responsible for maintaining a healthy body.

10.1 Food and Health

General Objectives Students should be aware of the importance of a balanced diet.

10.2 Food Tests

General Objectives Students should be aware of simple tests for identifying the nutrients in food substances.

10.3 Cleanliness, Exercise, Rest and Health

General Objective Students should be aware of the importance of cleanliness, exercise and rest in maintaining good health.

10.4 Safety and Health

<u>General Objective</u> Students should be aware of simple first-aid measures and have a working knowledge of each procedure.

Unit 11 Energy in the Home

Aim This unit seeks to develop in students an awareness of the use of energy in the home, and the safety measures to follow when using heat and electrical energy

11.1 Heat Transfer

General Objective Students should understand that heat is transferred in one or more ways, and this is used by a number of appliances in the home e.g. fan, refrigerator, air-conditioner, stove.

11.2 Investigating Static Electricity

General Objectives Students should:

- (1) develop an awareness of the presence of static electricity
- (2) demonstrate an understanding of static electricity

11.3 Electricity in the Home

<u>General Objective</u> Students should appreciate that electricity is the main energy source for most homes in Jamaica and world-wide.

11.4 Electricity, Electronics and Magnetism

General Objectives Students should:

- (1) be aware of the applications of electronics in everyday life
- (2) have a simple qualitative understanding of magnets and their effects
- (3) be familiar with some electro-magnetic devices

11.5 Safe Use of Heat and Electricity

- (1) appreciate that the energy conversions from electricity, for many appliances, produce heat as a product or by-product
- (2) understand the potential hazards when working with electricity
- (3) be aware that using appliances require knowledge of safety precautions that must always be practised

Unit 12 The Resources – Water and Air

Aim Students should appreciate that water and air are two resources of the earth.

12.1 Sources of Water

<u>General Objective</u> Students should know that water comes from a number of sources, above and below ground.

12.2 Uses of water and air

General Objectives Students should demonstrate awareness of:

- (1) the uses of water as a solvent
- (2) the uses of water and air as sources of energy
- (3) the use of water in the agricultural industry

12.3 Gases in the Air

General Objectives Students should understand that:

- (1) the component gases of air can be utilized for a variety of purposes
- (2) the components of air are constantly being replenished in a cycle

12.4 Conservation of Water

General Objective Students should be aware that water should be conserved.

12.5 Water and Air Pollution

<u>General Objective</u> Students should be aware that man's activities can lead to pollution of water and air.

GRADE 9

Unit 13 Sensing and Responding to Our Environment

Aim This unit seeks to develop in students an awareness of the structures and functions of body systems, that help us to sense and respond to our environment.

13.1 Sense Organs

General Objectives Students should:

- (1) appreciate the importance of sense organs in making us aware of our environment
- (2) be aware of the needs of persons who have lost one or more sense organs
- (3) develop a positive attitude to challenged persons.

13.2 Central Nervous System

<u>General Objectives</u> Students should understand the role of the Central Nervous System (CNS) in coordinating the body's response to the environment.

13.3 Endocrine System

General Objectives Students should be aware that the endocrine system regulates the body's response to the environment.

Unit 14 More about Matter

Aims This unit seeks to help students:

- (1) be aware that atoms, molecules and ions, are the basic unit of all substances
- (2) appreciate that substances are combinations of elements in mixtures of compounds.

14.1 Pure and Impure Matter

General Objectives Students should understand that all matter may be classified as pure or impure.

14.2 Atoms, Molecules and Ions

General Objectives Students should:

- (1) understand that the basic particles of substances are either atoms, molecules or ions.
- (2) know that molecules are formed from the combination of atoms or ions.

14.3 Physical and Chemical Changes

General Objective Students should be aware that physical changes are easily reversed, while chemical changes are not.

14.4 Elements, Mixtures and Compounds

General Objectives Students should:

- (1) appreciate that pure substances rarely exist in nature.
- (2) know that substances are either elements, mixtures or compounds.
- (3) know that elements are made up of one type of atom, while compounds are made up of atoms or ions of different types.
- (4) know that chemical symbols are used to represent one atom of an element.

14.5 Metals and Non-metals

<u>General Objectives</u> Students should appreciate that elements behave differently, because of their being metals or non-metals.

14.6 Acids, Bases and Salts

General Objectives Students should:

- (1) appreciate that many chemicals found in the home are composed of a variety of elements.
- (2) be aware that many household chemicals can be classified as acids, alkalis or neutral substances.

Unit 15 Transport in Living Things

Aim This unit is designed to help students understand that within a complex organism, a transport system is needed to carry materials to and from the innermost cells.

15.1 Transport System in Plants

<u>General Objectives</u> Students should understand the importance of a transport system in plants.

15.2 Transport Systems in Animals

<u>General Objectives</u> Students should understand the structure of blood, and how it functions as a transport medium.

15.3 Diseases of the Circulatory System

General Objective Students should appreciate that the individual has a role to play in reducing the likelihood of some problems of the circulatory system.

Unit 16 Pregnancy and Health

Aim This unit seeks to help students appreciate the importance of the mother maintaining a healthy lifestyle during pregnancy.

16.1 Embryo Development and Birth

General Objectives Students should:

(1) realize that all the needs of the developing embryo are supplied by the female parent.

- (2) appreciate that the characteristics which make an organism unique are determined by the make-up of the male cell and the female cell from the parents.
- (3) be aware of the process of childbirth.

16.2 A Healthy Pregnancy

General Objective Students should appreciate that what a pregnant woman eats, and how she behaves in relation to drugs, alcohol and smoking, can affect her developing child.

16.3 Birth Control Methods

General Objectives Students should:

- (1) appreciate that they need to react in a responsible way to their own emotional and sexual development, and develop positive values in their interactions with others
- (2) appreciate that pregnancy can have certain harmful effects on the female if she is too young (not having become fully grown herself), or if the pregnancies are too close together (using up resources, tiredness, etc.)

Unit 17 Forces and Motion

Aim This unit is designed to help students become aware of ways in which forces and motion act in everyday life.

17.1 Pushes and Pulls

General Objectives Students should:

- (1) understand that a force is either a 'push' or a 'pull' (or a 'twist')
- (2) know that pushes and pulls (forces) change the shape of objects, and the state of motion of objects

17.2 Mechanical Movements in Land, Water, Air

General Objectives Students should:

- (1) understand that movement results from unbalanced forces
- (2) understand ways in which forces can be used to control motion

17.3 Measuring Forces

General Objective Students should be aware that forces can be quantified.

17.4 Locomotion in Animals

General Objective Students should appreciate that animals can move from place to place.

Unit 18 More about the Earth's Resources

Aim This unit seeks to help students realize that only some of the earth's resources are renewable and that humans have the responsibility to use the earth's resources wisely.

18.1 Rocks and Minerals

General Objectives Students should be able to:

- (1) list a number of ways in which rocks and minerals serve man's purposes
- (2) explain why rocks and minerals are non-renewable
- (3) explain why rocks and minerals should be conserved (because they exist in finite quantities)

18.2 Soil and Soil Conservation

General Objectives Students should:

- (1) understand that soils are important natural resources
- (2) be aware of the importance of conserving soil

18.3 Forests and Wildlife and their Conservation

- (1) understand that forests and wildlife are resources of the earth
- (2) appreciate that conservation of forests and wildlife helps to maintain the balance of nature

GOVERNMENT OF JAMAICA/ WORLD BANK REFORM OF SECONDARY EDUCATION (R.O.S.E)

CURRICULUM GUIDE SOCIAL STUDIES

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• Final Review - Officers in the Social Studies Section

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Curriculum Guide - Social Studies

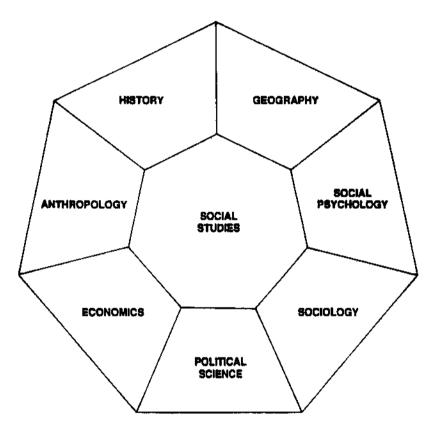
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PHILOSOPHY OF SOCIAL STUDIES

Social Studies is primarily concerned with the study of people, their activities and relationships, as they interact with one another and with their physical and socio-cultural environment in an effort to meet their needs (to live and to make a living). It is essentially the study of human group experiences.

Social Studies is inter/multi-disciplinary in nature and draws its subject matter from a variety of Social Science disciplines – History, Geography, Political Science, Economics, Sociology, Anthropology and Social Psychology as illustrated in the diagram.



Social Studies programmes provide experiences through which students are expected to gain knowledge and insights, develop and practise a variety of skills and attitudes as well as human understanding and social responsibility

Social Studies lessons help students to explain human experiences in the past and present and develop in them the ability to anticipate and prepare for the experiences of the future, to make sense out of the world as they find it and build better worlds than they do find. Above all Social Studies (lessons should) help pupils to feel valued and valuable.

The subject content may be organized around (any of the following:) concepts, ideas, generalization, themes, problems, topics, or geographical areas. This programme, designed for Grades 7-9 Jamaican students, incorporates a variety of these organizational approaches.

The following themes concepts and social issues give unity to the whole programme

THEMES	CONCEPTS	SOCIAL ISSUES
Living together	Interdependence	Environmental concerns
Working together	Change	Substance Abuse
Growing together	Conflict	Population
	Culture	Health
	Identity	Human Rights
	democracy	

These themes concepts and issues must be explored as students learn about themselves and other Societies.

Equally important is the set of skills which can be transferred to new situation. These skills include basic communication skills, map and graphic skills, thinking skills, valuing skills and social participation skills.

As a way of acquiring the knowledge and skills, students need to be exposed to a set of critical learning experiences. They must read, write and dramatize, analyze, organize and, as much as possible, experience the curriculum first hand.

Social Studies is the vanguard in the development of positive attitudes and values. These attitudes are difficult to assess but are essential to the development of the student. Thus the Social Studies classroom and the learning experiences provided therein must create the atmosphere in which these can flourish. It is hoped that as a result of personal inquiry and free choice, students will come to believe and act upon the core values (such as) human dignity, honesty, equality, cooperation, self worth, national pride and self discipline, and as such develop into responsible citizens.

RATIONALE

Social Studies education has as its goal the preparation of students to make, and act on rational decisions, both as individuals and as group members. These decisions should be based on knowledge and on personal values that have been systematically explored and clarified.

Since a large percentage of students in the Grades 7-9 age cohort will not proceed beyond Grade 9, but will nevertheless be performing the roles of parents, citizens, workers and consumers, the Social Studies curriculum for the group must address this reality. For others the Social Studies programme will provide the groundwork for the further study of History, Geography and Social Studies in Grade 10.

The Grades 7-9 students have some positive traits and characteristics which should be harnessed in promoting their educational development. They are curious, imaginative, sensitive and creative. The curriculum will accommodate these and other social and psychological characteristics manifested by our children.

The wide range of achievement levels creates the need for a variety of teaching methodologies, materials and activities to match the needs and characteristics of the students. This must mean the engagement of innovative teaching strategies, the production and use of learning resources to provide personal relevance, to empower the students and to make them more effective and efficient.

Education for informed decision-making and responsible social action is especially critical for students in Jamaica. We are a developing country undergoing rapid technological changes and economic difficulties which impact negatively and positively on the people and on the environment in which they live. Unevenness in income distribution and persistent poverty have led to an increased emphasis on economic survival on the one hand, and on the acquisition of material goods on the other.

In pursuit of these, the people have become geographically mobile, politically conscious and entrepreneurial in finding alternative economic activities. The Social Studies curriculum should play its part in developing entrepreneurial skills and geographical knowledge as well as a commitment to community and national development.

The schools of the 1990s are preparing adults for the year 2000 and beyond. It is not enough to teach students answers to yesterday's or even today's problems; we must teach them to resolve problems – the process of decision making and civic action – so that they can cope with the present, shape the future, and in so doing minimize the shock of rapid change.

In addition to all this, Social Studies offers young people the opportunity to recognize the significance of their experiences as they seek to understand more about themselves, and to become more aware of the complex social relationships of which they are a part. Social Studies programmes, if taught well should create for students a necessary bridge between school and society.

SUMMARY OF CONTENT

The content of the Social Studies curriculum is developed around three themes: Living Together (Grade 7), Working Together (Grade 8), Growing Together (Grade 9). Topics and sub-topics have been carefully selected to facilitate the investigation of the themes. This summary/outline lists the topics to be explored in studying each of the themes.

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Overall Theme:

Living Together

Topics and Sub-topics:

- 1. Our People
 - A. Our Motto
 - B. Our Heroes
 - C. Our Ancestors
 - D. Our Cultural Heritage
- 2. Living Together in Groups
 - A. Society, Social Groups and Institutions
 - B. Primary Groups
 - C. Secondary Groups
- 3. Social and Environmental Issues
 - A. Good Health Practices
 - B. Sexually Transmitted Diseases
 - C. Substance Abuse
 - D. Child Abuse
 - E. The Rights of the Child

Grade 8

Overall Theme:

Working Together

Topics and Sub-topics:

- 1. Jamaica: Physical Resources
 - A. Location, Size Relief
 - B. Climate and Vegetation
- 2. Jamaica: Human Resources
 - A. Population
- 3. Using Our Resources and Related Environmental Matters
 - A. Farming
 - B. Fishing
 - C. Mining and Manufacturing
 - D. Tourism

4. Moving Goods and People

- A Jamaica's Internal Transportation
- B. Jamaica's Regional and International Links

5. Social Issues

A. Employers and Employees: Rights and Responsibilities

Grade 9

Overall Theme:

Growing Together

Topics and Sub-topics:

- 1. Earning a Living
 - A. Why People Work
 - B. Occupations in Jamaica
 - C. Investigating Jobs in Jamaica

2. Consumer Affairs

- A. Consumer and Consumption
- B. Good Consumer Practices
- C. Consumer Protection

3. Nation Building

- A. Government
- B. People's Rights and Responsibilities and Consequences Related to Violations of Such Rights
- C. Nation Builders
- D. Life and Work of Marcus Garvey

4. Regional and Global Relations

- A. World Government
- B. Trade Agreements and Regional Cooperation

5. Human Relations

- A. Population: Growth and Expansion
- B. Food Supply

SCOPE AND SEQUENCE

GRADES 7-9

The Scope and Sequence is intended to facilitate the teaching/learning process and sets out in careful sequence, the contents of the Social Studies curriculum.

For each Grade level, the content is divided into Units of study on a termly basis. The topics and sub-topics to be covered in a Unit are clearly stated and so, too, are the expected learning outcomes - the knowledge to be gained as well as the concepts, skills and attitudes to be developed.

Additionally, help is offered to the teacher, in identifying possibilities for integrating Social Studies with other subjects in the wider curriculum.

SCOPE AND

Grade 7 Term 1 Theme Unit 1:

Sub-Topic: A:

Organizing Concepts:

CONTENT	KNOWLEDGE	CONCEPTS
Origin of the Motto and Coat of	Describe the Coat of Arms.	motto ethnic group
Arms	Explain what the Motto means.	patriotism Jamaican stereotype
Reasons for Motto	Give examples of behaviour: consistent with the Motto	prejudice one people
Uses of the Motto	inconsistent with the Motto.	logo indigenous
Meaning of the Motto	Suggest reasons why countries have mottoes.	loyalty
People and the Motto		
•	Suggest ways of improving relations between Jamaicans of different ethnic backgrounds.	

Sub-Topic B: Organizing Concepts:

	Organizing Concepts.		
Who is a hero/heroine?	Define and use concepts correctly.	Hero/Heroine National Hero	
Who is a National Hero?	List characteristics of heroes/heroines.	Bravery	
The National Heroes and their		Leader	
contribution to national life.	Identify heroes/heroines in their community/parish and describe their	Nation builder	
Life of the hero/heroine	contribution to the development of the community parish.		
Heroes/heroines in community			
	Describe the qualities of our National Heroes.		
	Identify the relationship between heroes/heroines and nation-building.		
	i		

SEQUENCE

Living Together
Our People
Our National Motto
change, conflict, culture, identity

SKILLS	ATTITUDES	POSSIBLE INTEGRATION
Draw cartoons / sketches.	Show respect for one another	Language Arts
Work in small groups.	irrespective of racial/ethnic differences.	Resource and Technology
Draw Coat of Arms.	Co-operate in groups	
Read and analyse poetry.	Complete tasks and homework.	
Participate in class discussion Make rational individual	Develop a sense of pride in being Jamaican,	
decisions.	Develop an appreciation of History as an important guide for the future.	

Our Heroes

change, conflict, culture, identity

Locate places.	Show respect for heroes/heroines and	Language Arts
Write poems and songs.	their work.	Religious Education
Interview resource persons.	Participate in class discussion	Resource & Technology
Answer questions precisely.	Cooperate in groups to complete tasks assigned	
Distinguish between fact and opinion	Listen attentively and critically to	
Detect cause and effect relationships.	discussions, tape recordings and oral reports.	
Make generalizations.	Appreciate the importance of	
Form concepts.	historical monuments and public property.	
Identify values.		
Make moral judgments.	i	
Prepare and write summaries.		
Place dates in chronological order.		

SCOPE AND

Grade 7 Term 1 Theme Unit 1:

Sub-Topic: C:

Organizing Concepts:

CONTENT	KNOWLEDGE	CONCEPTS
Arawaks	Define and use concepts correctly.	Ancestors
Spaniards	List racial/ethnic groups to	Descendant
Jews	which our ancestors belonged.	Immigrant
English	Locate and name the countries from which the ancestors	Ethnic group
Chinese	came.	Emigrant
Syrians/Lebanese	Describe the way of life of our ancestors in their country of	Artifact
Africans	origin.	Push factors
East Indians	Explain how the ancestors depended on the environment	
Push and pull factors	to satisfy their needs.	
Places and parishes where the various groups settled	Identify push & pull factors which operated with each group of ancestors	
How each group satisfied basic needs		
:		

SEQUENCE

Living Together Our People Our Ancestors change, conflict, culture, identity

SKILLS	ATTITUDES	POSSIBLE INTEGRATION
Locate places on maps.	Accept their physical appearance as beautiful	Language Arts
Trace routes on maps.	irrespective of their racial/ethnic origins.	Music
Listen to and ask questions of resource persons.	Show respect for people of	Resource & Technology
Dramatise, events	different racial/ethnic backgrounds.	Religious Education
Make dolls.	Recognize that we need to	
Complete a time line.	know our history in order to know ourselves.	
Arrange a table in chronological order.	Show tolerance for people of different racial/ethnic	
Participate in class	backgrounds.	
discussions.	Appreciate the value of human life.	
Make oral and written summaries and reports.	Show commitment to	
Analyse data in various forms.	improving relations among Jamaicans.	
Differentiate between fact and opinion.		·

SCOPE AND

Grade 7 Term 1 Theme Unit 1:

Sub-Topic: D:

Organizing Concepts:

CONTENT	KNOWLEDGE	CONCEPTS
CONTENT Dress Dance Music Drama Speech Food Folklore	Define and use concepts correctly. List characteristics of heroes/heroines. Identify heroes/heroines in their community/parish and describe their contribution to the development of the community /parish. Describe the qualities of our	Hero/Heroine National Hero Bravery Leader Nation builder
Folk medicine Festivals and celebrations Religion National symbols Preserving our culture place names	National Heroes. Identify the relationship between heroes/heroines and nation-building.	

SEQUENCE

Living Together
Our People
Our Cultural Heritage
change, conflict, culture, identity

SKILLS	ATTITUDES	POSSIBLE
		INTEGRATION
Make sketches.	Show appreciation for the contribution of each group to	Language Arts
Write skits/short essays.	our cultural heritage.	Resource & Technology,
Tell stories, riddles, proverbs.	Appreciate the importance of preserving our culture while	Music
Analyse data.	remaining open to changes.	Religious Education
Do research	Recognize and respect cultural differences and minority	Science.
Draw national symbols	rights.	
Form concepts and make generalizations.	Demonstrate industry, punctuality and self discipline.	
Provide evidence to support a value judgement.	Realize that folk medicine provided a base for modern medicine.	
Make models.	Demonstrate a willingness to	
Interpret maps, pictures, diagrams, tables.	work in groups.	
Analyse popular songs/poems which describe aspects of our culture.		
Make notes and summaries.		

SCOPE AND

Grade 7 Term 1

Theme Unit 2:

Sub-Topic: A:
Organizing Concepts:

CONTENT	KNOWLEDGE	CONCEPTS
Society, social groups, institutions, roles, norms, culture Characteristics of groups Roles of individuals and leaders of a group. Culture and what it is Influence of culture on behaviour	Define and use concepts correctly. Give examples and non-examples of the concepts. Explain why people join groups. List the characteristics of institutions. List various groups to which students belong. Describe their roles in various groups. Describe or list qualities of a group leader.	Social groups Institutions Norms Roles Interaction Values Culture

SEQUENCE

Living Together Living Togother in Groups Society, Social Groups and Institutions change, conflict, culture, identity and inter-dependence

SKILLS	ATTITUDES	POSSIBLE
		INTEGRATION
Read resource materials.	Develop an awareness of the importance of groups in	Language Arts
Analyse case studies	everyday life.	Maths
Summarize main ideas.	Recognize the influence of culture on behaviour.	
Classify groups.	Realize that values do conflict	
Make a role chart	Accept cultural differences.	
Prepare and use a role checklist	See themselves as important	
Make generalizations.	members of society.	
Construct a bar graph.	Appreciate that interdependence is necessary	
Locate places on a map.	for human group survival.	
Conduct an interview.		
Detect cause and effect.		

SCOPE AND

Grade 7 Term 1

Theme Unit 2:

Sub-Topic: B:
Organizing Concepts:

CONTENT	KNOWLEDGE	CONCEPTS
The Family	Classify families according to types.	Primary group
Peer Group	List and explain the functions	Family,
Types of families and peer groups	of the family	Peer group,
Functions and roles of	Explain how culture influences types of families and roles of	Family tree
members within groups	family members, in Jamaica	Socialization
Factors which influence changing roles and functions	State examples of peer groups	Generation
Family problems and the	and describe roles of members	Peer pressure
solutions	Identify changes in role of family over time	Gang
Peer pressure and its influence on behaviour	Identify and discuss the factors	Generation gap
influence on behaviour	which have led to the changing	Peer counseling
	role of family members.	Rules
	List some family problems and suggest ways of solving them.	Sanctions
	Explain peer pressure and its influence on behaviour	

SEQUENCE

Living Together Living Togother in Groups Primary groups change, conflict, culture, inter-dependence, identity

SKILLS	ATTITUDES	POSSIBLE
		INTEGRATION
Make generalization.	Participate in class discussion willingly	Language Arts
Draw family tree.	Work independently during a	Resource and Technology,
Dramatize group situations.	test	Art & Craft and Home Economics
Analyse graphic materials and pictures.	Recognize themselves as unique with a contribution to make to society	Physical Education.
Make models.	Defend their value position.	
Discuss information	Like themselves and	
Locate places on World Map	appreciate their talents and abilities	
Identify choices in problem solving.	Show a willingness to love, respect and cooperate with	
Draw conclusion.	family members.	
Askl and answer questions.	Appreciate the importance of rules in maintaining order and	
Make comparisons.	stability in society.	
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Make comparisons.	rules in maintaining order and	

SCOPE AND

Grade 7 Term I Theme Unit 2:

Sub-Topic: C:

Organizing Concepts:

CONTENT	KNOWLEDGE	CONCEPTS
CONTENT School Church Clubs Community Characteristics of these groups Functions of groups and role of members Historical development of the groups Group structures and their contribution to the society	List the characteristics of secondary groups. Give examples of secondary groups. List the characteristics of institutions. Explain the functions of these groups in the society. Outline the historical development of their community. Describe the ways in which community members are inter-dependent.	Secondary group Rules Sanctions Voluntary membership Involuntary membership Community Club Church School

SEQUENCE

Living Together Living Togother in Groups Secondary groups identity, change, culture, conflict, inter-dependence

SKILLS	ATTITUDES	POSSIBLE
		INTEGRATION
Draw an orgranizational chart.	Listen attentively and critically to presentations from classmates, teachers and	Language Arts Maths
Interview resource persons.	resource persons.	Religious Education
Organize data in graphs, tables and charts.	Complete assigned tasks for group project.	_
Locate places on a community map.	Choose group leader in a democratic way.	
Write interview schedule.	Obey the instruction given by group leader.	
Make comparisons.	Cooperate with classmates to complete a project.	
	Show politeness to each other and to the people they meet on a field trip.	

SCOPE AND

Grade 7 Term III Theme Unit 3:

Sub-Topic: A:
Organizing Concepts:

CONTENT	KNOWLEDGE	CONCEPTS
Importance of keeping healthy	Define and use the following concepts:	Good health practices
The role of government in helping to keep people healthy The role of the media in promoting good and bad health practices Role of international organizations in our health care programme Common health problems	Balanced diet, famine, malnutrition, immunization, curative medicine, preventative medicine etc. List 5 good health practices. Identify and discuss the factors which prevent individuals from maintaining good health practices. Identify and explain the	Balanced diet Malnutrition Famine Immunization Preventative health care Curative medicine Nutrition Food groups
Factors affecting good health practices Workers in the health sector	relationship between good health practices and the social and economic development of the country.	Hygiene Mentally/Physically challenged
Attitudes to and provisions for the mentally and physically challenged in our society	Explain how culture and other factors can lead to unhealthy practices. List the workers in the health sector who help to keep the people in their community /parish healthy and describe their role. Describe the role of government and international organizations in community health.	

SEQUENCE

Living Together Social and Environmental Issues Good Health Practices change, conflict, culture, inter-dependence

SKILLS	ATTITUDES	POSSIBLE INTEGRATION
Complete a table.	Participate in class discussions	Language Arts
Locate places on maps.	Demonstrate an awareness of	Science
Participate in class discussions	keeping oneself and environment clean and safe.	Resource and Technology,
Analyse pictures, photographs and cartoons and graphic data.	Practice cooperation in group activities	Art & Craft
Work in small groups.	Recognize that values conflict.	
Evaluate advertisements.	Refrain from causing	
Detect cause and effect relationship.	disturbances in the classroom that make learning difficult/impossible.	
Research topics.	-	
Write an interview schedule.	Show willingness to assume leadership roles.	
Conduct a survey.	Appreciate the mentally and physically challenged as	
Role play	equal members of the society and recognize their	
Make notes and summaries	contributions.	

SCOPE AND

Grade 7 Term III Theme Unit 3:

Sub-Topic: B:

STDs: what they are, their symptoms, causes and effects Myths and facts about STDs The social and economic cost of STDs Preventative measures Explain the term, Sexually Transmitted Diseases. Describe the effect of STDs on the individual. Evaluate the social and economic cost of these diseases to the society. List the problems which can inhibit the treatment of these diseases and suggest solutions to these problems. List they problems which can inhibit the treatment of these diseases and suggest solutions to these problems. Contagious Identify ways in which children can protect themselves from these diseases. Discuss the availability of support services for individuals suffering from these diseases. Identify and discuss myths associated with STDs.

SEQUENCE

Living Together Social and Environmental Issues Sexually Transmitted Diseases change, conflict, culture

SKILLS	ATTITUDES	POSSIBLE
	ATTITUDES	INTEGRATION
Make decisions.	Emphathize with a child with STD.	Language Arts
Justify one's choice.	Show concern for the welfare	Religious Education
Observe and record information.	of others.	Resource and Technology
Differentiate between fact and	Show respect for the ideas and feelings of others.	Health and family life.
myth.	Be willing to protect	Science
Illustrate advertisements.	themselves and others from STDs.	
Analyse graphs tables	Demonstrate an awareness of	
Participate in class activities	the importance of keeping healthy.	
Identify the values and the		
values of others.	Co-operate in group activities.	

SCOPE AND

Grade 7 Term I Theme Unit 3:

Sub-Topic: C:

CONTENT	KNOWLEDGE	CONCEPTS
Substances which are abused Health problems associated with substance abuse. Social and economic costs of substance abuse Role of friends, family members and society in eliminating substance abuse Substance abuse and the future	List substances abused and describe how the abuse occurs. Identify and explain the reasons people abuse various substances. Explain the ways in which drug addiction affects the individual, the family and the society. Analyse case studies on substance abuse. State rules that exist at home, at school, in the country which prohibit substance abuse and the sanctions for breaches. Describe the support services available to the abuser Predict the future consequences for the society if we fail to win the war against substance abuse. Assess the role of the media in substance abuse education	Substance abuse Drug abuse Alcoholism Addiction Rehabilitation

SEQUENCE

Living Together Social and Environmental Issues Substance Abuse change, conflict, culture

SKILLS	ATTITUDES	POSSIBLE
		INTEGRATION
Role play	Become involved in a school substance abuse education	Language Arts
Make decisions.	programme.	Religious Education
State consequences of choice.	Express their own feelings on substance abuse.	Science
Differentiate between fact and	Swodies adags,	Health and family life
myth.	Accept responsibility for their own actions.	Trouve and mining into
Group substances.		
	See themselves as worthwhile	
Read resource materials.	individuals with a	
Write slogans/lyrics/dub	contribution to make to the	
poems.	society.	
7 5	Cooperate in groups.	
Draw reasoned conclusions about role of different		
agencies in substance abuse		i
education.		
Analyse pictures, tables, graphs.		,
Identify value conflicts.		
Practice cooperation in		
groups.		
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SCOPE AND

Grade 7 Term I Theme Unit 3:

Sub-Topic: D:

CONTENT	KNOWLEDGE	CONCEPTS
Types of child abuse Reasons for child abuse Consequences of child abuse Protection for the abused child Historical perspective on child abuse	State reason why children are abused. Compare child abuse in Jamaica and in other parts of the world. Describe and explain the effects of abuse on the child. Suggest steps child should take to prevent child abuse or protect self from further abuse. State the consequences for the society if child abuse is not reduced/eliminated. Identify the work of agencies which assist abused children	Child abuse Incest Rape Buggery Age of consent Child labour Carnal abuse Pedophilia Corporal Punishment

SEQUENCE

Living Together Social and Environmental Issues Child Abuse change, conflict, culture

SKILLS	ATTITUDES	POSSIBLE
		INTEGRATION
Role play	Empathise with children who have been abused.	Language Arts
Write letter		Religious
Read resource materials.	Participate in class discussions.	Education
Make summaries.	Demonstrate an awareness of	
Predict consequences.	how to protect themselves.	
Draw conclusions.	Demonstrate a commitment to protecting selves and peers	
Draw cartoon strip	from child abuse.	
Conduct interview.	See themselves as valuable members of the society.	
Research topics	Tolerate points of view on child abuse that are different	
Differentiate between fact and myth	from their own.	
Detect cause and effect		
		4

SCOPE AND

Grade 7 Term III Theme Unit 3:

Sub-Topic: E:
Organizing Concepts:

CONTENT	KNOWLEDGE	CONCEPTS
The United Nations and the Rights of the Child Why rights are violated. Local laws	Memorize all the Rights of the child. Explain what each right means and give examples. Outline briefly the role of the United Nations in the Declaration of the Rights of the Child. Explain why children need rights. List the responsibilities children have to self, family, school, community and country. Examine the Jamaican laws which protect children and examine their effectiveness.	Rights Responsibilities Choice Self preservation

SEQUENCE

Living Together Social and Environmental Issues The Rights of the Child change, conflict, identity

SKILLS	ATTITUDES	POSSIBLE INTEGRATION
Express ideas through speech.	Recognize that rights and responsibilities go together.	Language Arts
Ask and answer questions.	Realize that responsibilities	Guidance
Make choices.	assist character development.	
Locate information	Show respect for rights of others.	
Make charts.	Appreciate that there is often	
Draw conclusions.	a time lag between their recognition of their rights and	
Dramatise a situation	the acceptance of these rights by adults.	
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SCOPE AND

Grade 8 Term 1 Theme Unit 1:

Sub-Topic: A:

escribe Jamaica's position the Caribbean and in elation to the rest of the forld. emonstrate understanding of elative sizes of Caribbean and masses. escribe and explain the formation and appearance of farious relief and drainage eatures found in Jamaica. explain relationship between elief features, settlement and and use.	Location Land masses Water bodies Relief features Drainage Rocks Sedimentary Igneous Metamorphic.
The physical disasters to which Jamaica is prone as a result of a combination of physical factors (location, climate, relief) and human intervention Disaster preparedness measures that should be taken to minimize effects of natural disaster	Mountain, hill ,valley, plain, plateau Climate Altitude Latitude Equator
Disaster preparedness measures that should be taken to minimize effects of	Latitude
	climate, relief) and human intervention Disaster preparedness measures that should be taken to minimize effects of

SEQUENCE

WorkingTogether

Jamaica: Physical Resources

Location, Size, Relief

change, conflict, culture, inter-dependence

SKILLS	ATTITUDES	POSSIBLE INTEGRATION
Observe and classify physical landscape.	Cooperate and work in groups.	Maths
Measure and calculate distance, size and area.	Work individually and to strive for excellence.	Language Arts Science
Read to obtain relevant information.	Demonstrate a commitment to the preservation of the environment.	
Give oral reports.	environment.	
Give reasoned explanations.	Appreciate diversity of relief of features found in Jamaica	
Establish cause and effect.	Jamaica	
Record information accurately.	3	
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SCOPE AND

Grade 8 Term 1

Theme Unit 1:

Sub-Topic: B:
Organizing Concepts:

Reasons for the tropical marine nature of the climate Characteristics of this type of climate: i) temperature ii) wind iii) rain-fall Vegetation types associated with different physical regions of Jamaica Changes and disasters brought about in the Jamaican physical environment through natural cause and the intervention of man. Preventative relief measures and institutions to cope with natural disaster. Describe and explain: 1. The tropical marine nature of Jamaica's climate 2. How climate and physical features interact to determine the natural vegetation cover 3. How human activity has modified the natural vegetation cover. Natural disaster Hurricane Storm Flood Climate Climate The tropical marine nature of Jamaica's climate 1. The tropical marine nature of Jamaica's climate 2. How climate and physical features interact to determine the natural vegetation cover Natural disaster Hurricane Storm Flood Climate Thority of Jamaica is prought about in the Jamaica is prone as a result of a combination of physical factors (location, climate relief) and human intervention.

SEQUENCE

WorkingTogether
Jamaica: Physical Resources
Climate and Vegetation
change, conflict, culture

SKILLS	ATTITUDES	POSSIBLE
		INTEGRATION
Read and collect data from various sources.	Grow in consciousness of the need for all citizens to	Language Arts
Interpret and construct	protect the environment.	Maths
diagrams and charts.	Display an attitude of readiness for disaster.	Science
Ask precise questions.	Educate others about disaster	
Label and annotate maps and diagrams.	preparedness.	
Interpret keys/legends, diagrams, and maps.		
Give reasoned explanations.		
Establish cause and effect.		
Record information accurately.		
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SCOPE AND

Unit 2: Sub-Topic A: Organizing Concepts:

CONTENT	KNOWLEDGE	CONCEPTS
Jamaica's total population composition in terms of age/sex Urbanization, internal migration, and the 'push and 'pull' factors The importance of acquiring a skill Under and unemployment	Describe population of Jamaica in terms of number, distribution and composition. Give reasons for under and unemployment. Describe the composition of the labour force - age, sex, education, skills. Identify and assess opportunities for training. Describe the economic effects of population growth and distribution. Compare the composition of today's labour force with the labour force during slavery and onwards.	Internal migration Population Age cohort Natural increase Labour force Urbanization Pull factors Push factors Population density Population composition population distribution, birth rate, death rate, skilled labour population growth, birth control family planning unemployment under-employment

SEQUENCE

Jamaica: Human Resources

Population

change, conflict, culture, inter-dependence

SKILLS	ATTITUDES	POSSIBLE
		INTEGRATION
Prepare and present data in various forms.	Appreciate the fact that all skills are needed for national	Career Education Maths
Ask precise questions.	development.	Iviatns
Read and interpret maps, graphs, charts.	Work as an employed or self employed person willingly.	Language Arts
Debate topics.	Appreciate the importance of acquiring a skill.	
Make comparisons.	Demonstrate an awareness of the fact that population control is necessary for improving living standards.	
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SCOPE AND

Grade 8 Term II Theme Unit 3:

Sub-Topic: A:

CONTENT	KNOWLEDGE	CONCEPTS
CONTENT Traditional commercial crops. Non-traditional commercial crops Agro industries Large and small scale farming Agricultural organizations Importance of farming Problems associated with farming. Solutions to problems.	Categorize human activities as primary, secondary, tertiary. Explain the relationship between human skills and abilities, physical resources and economic activity. Explain how physical features and climate have influenced the choice and location of farming activities. Describe the steps involved in the cultivation and processing of certain products. Describe and assess	Subsistence Traditional crops Non-traditional crop Commercial Agro industry Horticulture Harvesting Trade Cultivation Processing Pastoral Arable
	<u> </u>	Pastoral Arable Soil erosion Technology
	Identify and discuss the problems associated with farming Critically assess farming practices in Jamaica.	Large & small scale farming Praedial Larceny

SEQUENCE

WorkingTogether Using our Resources and Related Environmental Matters Farming change, conflict, culture, inter-dependence

SKILLS	ATTITUDES	POSSIBLE
		INTEGRATION
Make notes and summaries.	Appreciate the dignity of	Career
Observe and record information.	labour and the importance of all workers in the community.	Education
Prepare and present data.	Demonstrate a commitment	Language Arts
Debate.	to the preservation of the physical environment.	Resource and Technology (Agriculture)
Interpret distribution maps.	Show respect for the property of others.	
Analyse and assess information.	Experiment with new	
Categorize main agricultural products	technology,	
Dramatize a scene		
		:

SCOPE AND

Grade 8 Term II

Theme Unit 3:

Sub-Topic: B:
Organizing Concepts:

CONTENT	KNOWLEDGE	CONCEPTS
Types of fishing: commercial, subsistence, sport.	Describe the conditions which contribute to rich marine life.	Continental shelf Offshore fishing
For each type: personnel involved, equipment used, catch and disposal of catch. Factors affecting fishing and the main fishing grounds	Describe and assess Government's involvement in the fishing industry. Describe the part the fishing industry plays in the national economy.	In shore Fish Farm Marine Life Cooperatives
Methods of conservation practised Methods of fishing used. Problem of pollution of rivers Significance to the economy Fish farming areas, methods, marketing, structure of the industry, part played by government in regulating and supporting the industry e.g. territorial waters	Demonstrate an awareness of the practices inimical to the fishing industry.	Pollution Sanctuary Banks Camp Inland fishing Fishing Village Fishing grounds Conservation

SEQUENCE

WorkingTogether Using our Resources and Related Environmental Matters Fishing

change, conflict, culture, inter-dependence

SKILLS	ATTITUDES	POSSIBLE INTEGRATION
Make notes and summaries. Prepare and present data as maps, charts diagrams. Observe and obtain data from pictures, maps and charts. Listen attentively. Ask relevant questions. Locate and name fishing villages and groups on a map.	ATTITUDES Appreciate the dignity of labour and the importance of all workers in the community Be committed to the preservation of the marine environment. Display willingness to complete tasks assigned.	POSSIBLE INTEGRATION Language Arts Resource & Technology (Agriculture) Science

SCOPE AND

Grade 8 Term II Theme Unit 3:

Sub-Topic: C:

	1	
CONTENT	KNOWLEDGE	CONCEPTS
Bauxite: where found and	Establish relationship	Raw materials,
how mined	between rock types and the	ŕ
	occurrence of minerals.	Production
Preparation for export	occurrence of minorials.	* 104401011
	Describe the factors which	Brangaine
Exporting ports and their	1	Processing
facilities	have influenced the	
i acintico	development of our mining	Mass production
Countries of import	and manufacturing	
Countries of import	industries.	Division of labour
Contribution to the economy	j	
common to the decimenty	Identify and locate mining	Manufacturing industry
Uses, qualities of aluminum	and manufacturing centres in	_ ,
coos, quantitos or arannamani	Jamaica.	Industrialization, open-pit/open-
Other minerals mined	outline.	cast
/quarried in Jamaica:	Describe selected industrial	Cust
gypsum, limestone, marble,		Primary
silica, sand	processes.	Finitary
Sinca, Sand		la ,
Location and uses	Assess the role of	Secondary
Location and uses	manufacturing industries in	
Manufacturing activities:	economic development of	Tertiary
a) Processing of local	the country.	
		Agro-industry
agricultural materials.	Discuss the use and abuse of	
b) Industries based on	our mineral resources.	Alumina
imported raw materials		
and component parts.	Discuss attempts at	Aluminum
	conservation	1 1111111111111111111111111111111111111
Possibility of pollution	consci vation	revenue
inherent in these activities	Decree various by the mining	Tevenue
and measures for	Preservation by the mining	
environmental protection	and manufacturing	tax
(both current and suggested).	ministries in Jamaica.	
	1	levy
Sources of energy used for	Assess the impact of mining	
these industries and how	and manufacturing on the	output
these affect the	environment.	
environment.		royalty
	Identify and discuss careers	
Workers and careers in	in mining and	
mining and manufacturing	manufacturing.	
industries.	1	
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SEQUENCE

WorkingTogether Using our Resources and Related Environmental Matters Mining and Manufacturing change, conflict, culture, inter-dependence

SKILLS	ATTITUDES	POSSIBLE INTEGRATION
Observe and obtain data from maps, charts, graphs, slides. Collect data, analyse and interpret findings. Make notes and summaries. Prepare and present data as maps, tables, graphs, models, charts	Appreciate the dignity of labour and the importance of all workers in the community Appreciate things Jamaican. Appreciate the importance of preserving the physical environment Display a willingness to	INTEGRATION Career Education Science Resource and Technology/Industrial Arts
	work in groups. Work purposefully in groups.	

SCOPE AND

Grade 8 Term II Theme Unit 3:

Sub-Topic: C:

CONTENT	KNOWLEDGE	CONCEPTS
Jamaica: main tourist markets and their relative importance.	Identify and name on a world map Jamaica's chief tourist markets. Describe the attraction	Market Resort Tourist attraction
Methods of transport Impact of tourism on the country (economically, socially and culturally) Main tourist attractions and centres Methods of promoting	which Jamaica possesses for tourism. Assess the methods being used to promote these attractions. Discuss the economic linkages which emanate from the trade.	Tourist Tourism sector Tourism product Backward, Forward Linkages Stop over visitor
Impact of tourism on the environment Economic linkages with tourism Tourism in the future new resorts/new trends Careers in Tourism	Discuss the advantages and disadvantages of the tourist trade in Jamaica. Identify and discuss career opportunities in tourism. Predict trends in tourism	Eco-tourism cruise ship visitor All inclusive tour operator packaged holiday

SEQUENCE

WorkingTogether Using our Resources and Related Environmental Matters Tourism change, conflict, culture, inter-dependence, identity

SKILLS	ATTITUDES	POSSIBLE INTEGRATION
Observe and read to obtain information.	Appreciate things Jamaican and Jamaicans.	Resource & Technology/Art & Craft
Read maps, graphs, charts and tables.	Recognize and respect cultural differences.	Agriculture (Home Management)
Collect data using questionnaires and check lists.	Assume civic responsibilities appropriate to their age.	Language Arts Career Education
Prepare and present data in the form of maps, reports, models, charts, essays.	Display tolerance for people of other cultures	:
	Appreciate the importance of other languages to the tourism industries	

SCOPE AND

Grade 8 Term III Theme Unit 4:

Sub-Topic: A:
Organizing Concepts:

CONTENT	KNOWLEDGE	CONCEPTS
Modes of internal transportation	Identify models of internal transportation in Jamaica.	National
Volumes and types of	Identify and name the	International
vehicles using the roads	international and national airports in Jamaica.	Route way
Classification of roads into main, secondary, parochial.	Describe the routes taken by	Site
Road safety	air, roads and the railways.	Main road
Air and water transport	Explain the purposes for which each mode of	Parochial
Changes in internal	transport is used.	Secondary
transport	Explain the relationship between physical features	Modes of transport
Transport and the environment	and the development of routeways.	Road safety
Transport, relief, settlement and land use and the environment.	Relate the undesirable effects of transportation on the environment.	
Functions of Transport	Demonstrate a knowledge of road safety measures	
Regulatory bodies	Establish relationship between transport settlement and other types of land use.	

SEQUENCE

WorkingTogether Moving Goods and People Jamaica's Internal Transportation change, conflict, inter-dependence

SKILLS	ATTITUDES	POSSIBLE
		INTEGRATION
Make and read maps.	Take responsibility for one's	Maths
<u></u>	own safety on the road.	
Report data in written and		Language Arts
graphic form.	Cooperate fully in group	
	situations.	
Gather data through field		
visits.	Take responsibility for	
	keeping the environment	
Observe use of transport.	clean.	!
Write letter and descriptive	Exercise discipline in the use	
paragraphs.	of the various modes of	
	transport.	
	Show respect for public	
	property.	
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SCOPE AND

Grade 8 Term III Theme Unit 4:

Sub-Topic: B:
Organizing Concepts:

		Organizing Concepts:
CONTENT	KNOWLEDGE	CONCEPTS
Airports and seaports and their movement of goods and people Main airlines and shipping lines Kingston as a freeport and trans-shipment port The import and export processes Tariffs and custom duties Processes involved in travelling in and out of Jamaica Industrial action and the Transport Sector Career in airline and shipping industries	List main airlines and shipping lines which utilize Jamaican ports and Caribbean routes. Outline regulations governing the exporting of goods and the movement of people. Identify the main items of trade and direction of trade between Jamaica and the Caribbean. Evaluate the role and problems of national and regional airlines. Discuss the movement of people within and outside the Caribbean. Role of Kingston as a Transshipment port.	Sea port Free port Free trade Free Zone Quota License Import Duty Tariff Trading partner Trans-shipment Container services Customs duties export foreign exchange
	/	

SEQUENCE

WorkingTogether Moving Goods and People Jamaica's Internal Transportation change, conflict, inter-dependence

SKILLS	ATTITUDES	POSSIBLE INTEGRATION
Locate places and routes on maps	Take travel precautions seriously.	Maths
Simulate travel precautions.	Use rational processes to	Language Arts Career Education
Read materials and make	solve problems.	Career Education
notes.	Cooperate in group situations.	
Read and make maps and		
charts.	Comply with customs' regulations governing travel	
Draw flow diagrams.	regionally and internationally.	
Debate.		
Write letters and		
compositions.	1	

SCOPE AND

Grade 8 Term III Theme Unit 5:

Sub-Topic: A:

CONTENT	KNOWLEDGE	CONCEPTS
Laws governing employers' and employees' rights and responsibilities	Discuss the laws governing rights and responsibilities of employers and employees.	Rights Strikes
		Strikes Responsibilities Laws Lock outs Trade Unions Pressure group Lobbying Industrial action Collective bargaining Management
		Grievance Industrial procedure Dispute Arbitration Work to rule Sick out
		employer employee

SEQUENCE

WorkingTogether Social Issues

Employers and Employees: Rights and Responsibilities

change, conflict, culture, identity

SKILLS	ATTITUDES	POSSIBLE INTEGRATION
Select and use data to support a viewpoint.	Demonstrate a willingness to use rational processes to solve problems.	Language Arts
Listen and discuss critically	solve problems.	
and ask precise questions.	Appreciate the importance of rules and laws.	
Detect cause and effect		
relationship.	Appreciate the inter- dependence of employees	
Use resource materials to gain information.	and employers	
Role play.	Appreciate the rights and responsibilities of both groups.	
	Show tolerance for each category of worker.	
		and the state of t

SCOPE AND

Grade 9 Term I Theme Unit 1:

Sub-Topic: A:

CONTENT	KNOWLEDGE	CONCEPTS
Reasons why people work	Identify and discuss the reasons why people work.	Leisure
Self expression and national development as motivational	Differentiate between work	Work
forces to work.	and leisure.	Wages
Activities which can be viewed as both work or	Identify and describe activities which may be	Salary
leisure.	work for some people and leisure for others.	income
Leisure activities which could lead to career choice	Make a personal statement	career
Person's choice of job and his	about the type of work he/she would enjoy.	job
or her reason for choice.	Explain the term rewards	employed
Values and attitudes towards specific occupations.	and discuss the rewards people expect from work.	self employed
		employable
		4

SEQUENCE

WorkingTogether
Earning a Living
Why People Work
change, conflict, culture

SKILLS	ATTITUDES	POSSIBLE INTEGRATION
Identify critical attributes of relevant concepts.	Show a positive attitude towards work and its	Language Arts
Read textbooks, magazines, newspaper.	contribution to personal development.	Resource & Technology Career Education
Observe, examine and explain cases showing variety in people's motivation for work.	Show appreciation for all types of work and their interdependent function in national development.	
Make a decision in order to produce a personal statement. Make comparisons.	Recognize obligation to participate in learning activities.	
Compile and present data in graphic forms.	Show consideration for others' viewpoints and feelings.	
	Work effectively in groups.	
	<u> </u>	

SCOPE AND

Grade 9 Term I Theme Unit 1:

Sub-Topic: B:

CONTENT	KNOWLEDGE	CONCEPTS
CONTENT	KNOWEDGE	CONCERTS
Ways of earning a living in Jamaica.	List and briefly describe a wide range of ways of	Goods and Services
Identifying career	earning a living (Traditional and Non	Primary industry
employment structures	Traditional)	Secondary industry
Classifying various ways of earning a living: Professional	Classify Jamaican occupations in a variety of	Tertiary industry
and Non-Professional.	ways.	Employee
Agricultural occupations in the past,	Identify occupations which are male dominant and	Entrepreneur/Self employment
Non-traditional ways of	female dominant.	Traditional and Non-traditional occupations.
earning a living as a result of changes in technology and	Examine changes since 1930 in occupational opportunities	Employment
economic shifts.	available in Jamaica.	Unemployment
Gender discrimination or distinction	Discuss self employment and its advantages and disadvantages	Under-employment
Organizations in Jamaica which contribeto the decline	Predict occupation changes	Gender
of gender distinction in occupations.	in the 21st Century.	Discrimination
Self employment of various		Feminism
types and their advantages and disadvantages		Labour Intensive
		Cottage
		Industry

SEQUENCE

WorkingTogether
Earning a Living
Occupations in Jamaica
change, conflict, culture, inter-dependence

SKILLS	ATTITUDES	POSSIBLE
		INTEGRATION
Classify data.	Show appreciation for all types of work and their	Language Arts
Interview.	interdependent functions in national development.	Resource & Technology
Research.	Show willingness to address	Career
Listen to and ask questions of a resource person.	gender discrimination issues in employment.	
Report information graphically.	Show willingness to consider self employment as	
Discuss and make judgments.	a viable alternative to paid employment.	
Make comparisons.	Recognize an obligation to participate in learning	
Make generalizations.	activities.	
	Show consideration for the feelings and viewpoints of others.	

SCOPE AND

Grade 9

Theme

Sub-Topic: C: Unit 1:

Term I

CONTENT	KNOWLEDGE	CONCEPTS
Characteristics and peculiarities of certain jobs	List and classify types of jobs available.	Formal schooling
viz. safety, hours of work,	Investigate characteristics	Skilled/unskilled
Qualifications, job security etc.	and peculiarities of selected jobs.	Promotion
Workers' job satisfaction e.g.	Identify jobs which are	Training Experience,
feelings about the job, tasks, co-workers, supervisors, etc.	either male or female dominated.	Supervisory/
Ratio of males/females in	Discuss jobs in which	Managerial
particular jobs in general and in supervisory and /	gender employment is changing.	Job security
managerial roles	Discuss and describe	Job satisfaction
Workers Unions.	qualifications needed for employment in certain jobs.	Delegate
Employment of the Physically and Mentally	Identify and discuss the	Strike
challenged	meaning of job satisfaction. Discuss the functions of	Industrial action Working conditions
Unemployment Characteristic of acceptable	Workers' Union in Jamaica.	Incentives
working conditions	Discuss characteristics of acceptable working	Moditives
Responsibilities of workers.	conditions.	
	Investigate employment opportunities for Physically and Mentally Challenged.	

SEQUENCE

WorkingTogether
Earning a Living
Investigating Jobs in Jamaica
change, conflict, culture

SKILLS	ATTITUDES	POSSIBLE INTEGRATION
Work effectively in groups.	Show willingness to	Language Arts
List and classify data.	consider change in job opportunities.	Career Education
Make comparisons	Appreciate the satisfaction to be derived from a job well	Resource & Technology
Construct graphs, diagrams, charts.	done.	
Give oral and written reports.	Appreciate the skills and abilities of those who are Physically and Mentally	
Interviews.	challenged.	
Research.	Show tolerance for other people.	
Make choices and judgements		
Make statements about one's own skill and abilities	Display a willingness to give a fair day's work for a fair day's pay.	
	Appreciate the limiting effects of sex-role stereotyping.	
	Appreciate the effects of personal values and workers rights on behaviour at the	
	workplace.	

SCOPE AND

Grade 9 Term I Theme Unit 2:

Sub-Topic: A:

CONTENT	KNOWLEDGE	CONCEPTS
Who is a Consumer?	Explain who is a consumer and establish a link between	Consumer
Types of Consumers, goods, services, and credit consumed	consumer and producer	Goods
Factors influencing Consumer	Explain the different types of consumers.	Services
Spending e.g.: Advertisements, needs and	List and categorize the	Demand
wants, taste, income, culture, purchase arrangements e.g.	various goods and services people consume.	Supply
hire purchase, lay-away	Discuss the factors which	Scarcity
Consumer as part of a chain	influence consumer spending.	Glut
	Assess the impact of	Inflation
	advertisement on the consumer.	Mortgage
	Differentiate between goods	Hire Purchase
	and services, needs and wants, and supply and	Needs
	demand.	Wants
	Discuss the importance of Hire Purchase and Mortgage	Primary & Secondary
	to the consumer.	Goods
	•	Wholesaler Retailer
		Unit Price
		Olit Frice

SEQUENCE

GrowingTogether
Consumer Affairs
Consumer and Consumption
change, conflict, culture, inter-dependence

SKILLS	ATTITUDES	POSSIBLE
		INTEGRATION
List and categorize data.	Demonstrate an awareness of the influence of culture on	Resource & Technology (Home Management)
Evaluate and analyse advertisements.	consumer behaviour.	Language Arts
	Demonstrate an awareness	
Give oral and written reports.	of subtle attempts to persuade and the element of	Mathematics
Conceptualize.	persuasion in human relationships.	
Make generalizations and		
judgement.	Display willingness to	
	consider and satisfy needs	
In discussions – develop, clarify, justify and ask	before wants.	
probing questions.		
prooms quostions.		
Make notes and summaries.		
Organize and carry out group work.		

SCOPE AND

Grade 9 Term I Theme Unit 2:

Sub-Topic: B:

CONTENT	KNOWLEDGE	CONCEPTS
Define thrift, savings, budget.	Discuss various ways of controlling consumer	Income, Gross and Net,
Ways of being thrifty	spending.	Thrift
Saving and the various institutions that encourage	Identify the various institutions that encourage	Investments
consumers to save and invest	consumers to save and outline their functions.	Bonds.
Other forms of self-help e.g. morning sport, cooperatives.	Differentiate between the	Budget
Partner	different forms of savings and their usefulness.	Cooperative
Burial Scheme	Suggest ways by which	Banks,
	individuals and groups can practice self reliance.	Credit Cards,
	Distinguish between thrift,	Credit Union
	saving and budget.	Fixed deposit
	Discriminate between quality and price of various	Unit price
	goods and services.	Stock & Shares

SEQUENCE

GrowingTogether Consumer Affairs Good Consumer change, conflict, culture, inter-dependence

SKILLS	ATTITUDES	POSSIBLE
		INTEGRATION
Plan a budget and menu.	Display willingness to practise self-reliance.	Language Arts
Calculate prices, weights,		Mathematics
volume. discounts on	Show appreciation for the	
products.	importance of cooperative	Resource & Technology
Make decisions	efforts in solving economic problems.	(Home Economics)
Role-playing	Display a willingness to practise good consumer	
Solve problems	behaviour.	
Make choices.	Display a willingness to educate other people about	
Contribute to group projects and outcomes.	good consumer practices.	
Read and analyse product label.		
Read utility bills and meters		

SCOPE AND

Grade 9 Term I Theme Unit 2:

Sub-Topic: C:

CONTENT	KNOWLEDGE	CONCEPTS
Consumer rights and	Outline the rights and	Standard
responsibilities	responsibilities of the consumer.	Price control
Exploitation and the need for consumer protection	Suggest ways in which the consumer is exploited.	Quality control
Consumer protection and the role of Government and other	Name the Government	Deregulation
agencies	organizations and institutions dealing with	Import regulation
Laws to protect the consumer e.g. Hire Purchase Act,	consumer protection and describe their roles.	Rights and responsibility
Butcher's Regulation Act	Explain what is meant by	Exploitation
Use of the media in consumer protection Individual	Consumer Protection	
consumer protection	Suggest ways in which the consumer can be protected	
	1	

SEQUENCE

GrowingTogether
Consumer Affairs
Consumer Protection
culture, inter-dependence, identity

SKILLS	ATTITUDES	POSSIBLE
Research	Demand their rights and	INTEGRATION Resource & Technology
Debate.	exercise their responsibilities.	Home Economics
Debate. Make notes and summaries. Give oral report. Establish cause and effect. Conduct interviews. Make decisions. Make judgements. Determine facts from opinions. Ask relevant and precise questions. Solve problems.		Home Economics Art & Craft Mathematics

SCOPE AND

Grade 9 Term II

Theme Unit 3:

Sub-Topic: A:
Organizing Concepts:

CONTENT	KNOWLEDGE	CONCEPTS
Characteristics of	Define the term Government	Government Law
Government	and identify different types	
	of Government and describe	Democracy
Type of Government	the type in Jamaica.	Monarchy
History, structure and	Outline the development of	- Internations
functions of Government	our Government between 1938 and 1962.	Republic
Checks and balances in the	_	Constitution
system of Government	Describe the structure of Government.	Dictatorship
How laws are made	Explain what is Universal	Adult Suffrage
Constitutional reform	Adult Suffrage. State how	Addit Samasa
Committee of the control of the cont	our Government is elected.	Executive
	Discuss the relationship	Judiciary
	between Government and the individual.	Legislation
	Law making process	Independence
	Role of law enforcers	Nation
	Discuss some issues related	Cabinet
	to constitutional reform.	Senate, House of Representative
		1
1		

SEQUENCE

Growing Together Nation Building Government change, conflict, culture, inter-dependence

SKILLS	ATTITUDES	POSSIBLE
Interpret charts, photographs, diagrams. Construct flow charts. Interpret political cartoons. Give oral and written reports. Sequence events. Establish cause and effect. Make decisions using democratic processes.	Show loyalty to one's country and respect for the various institutions. Display a sense of civic responsibility. Exercise their rights to vote. Accept decisions of the majority in the choice of Government or leadership. Demonstrate a willingness to separate issues from personalities. Demonstrate belief in the democratic process.	POSSIBLE INTEGRATION Language Arts Religious Education

SCOPE AND

Grade 9 Term II Theme Unit 3:

Sub-Topic: B:

		Organizing Concepts.
CONTENT	KNOWLEDGE	CONCEPTS
Citizenship (birth and	Outline and discuss the	Nation
		Franchise
naturalization)	rights and responsibilities of	Franchise
	citizens contained in the	
Rights to: Fair trial, vote,	Constitution.	Alien
education, shelter		}
i cadamon, sheller	Idantify appear of	Citizens
i	Identify cases of	Citizens
Freedom of: movement,	infringement of the rights of	
worship, speech	the individual.	Citizenship
' '		
Responsibilities to: family,	Explain the consequences of	Dual citizenship
		Duai Citizonsinp
job self, nation, community	the violation of the rights	
1	and freedom of the	Rights
Rules and laws; police, army,	individual.	
courts, sanctions.		Responsibilities
	Suggest alternative to some	F
i ne ne ne		Naturalisation
Human Rights Organizations	societal sanctions.	Naturalisation
	Identify and discuss the role	Sanctions
	of organizations concerned	
	with human rights in	Freedom
	_	i recuoiii
	Jamaica.	
		Commonwealth
	ļ \$	Citizens
		Constitution
		Constitution
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SEQUENCE

Growing Together Nation Building

People's rights, freedoms, responsibilities and consequences to violations of such rights

change, conflict, culture, inter-dependence

change, conflict, culture, in		
SKILLS	ATTITUDES	POSSIBLE
		INTEGRATION
Make decision	Demand their rights and exercise their responsibilities	Language Arts
Solve problems	as citizens in a democratic society.	Religious Education
Debate issues		
Do research	Participate in community and national affairs willingly.	
Analyse information	Show respect and concern	
Identify difference between fact, opinion and bias	for the well being of all members of society.	
Determine cause and effect.	Demonstrate a willingness to compromise.	
	Work towards consensus.	
	Appreciate the importance of law and order to the society.	

SCOPE AND

Grade 9 Term II Theme Unit 3:

Sub-Topic: C:

1	
 The Arts Agriculture Dance Education/academic Music Sports Theatre Politics Social Work Why leaders emerge: qualities associated with leadership Rewards to our leaders at various levels of society. Discuss the characteristics of a leader. Compare the circumstances which lead to the emergence of these leaders. Compare the circumstances which lead to the emergence of these leaders. Critically assess the achievements of the individual in order to justify his/her being called a Nation Builder. Explain how the nation honours/rewards its leaders 	Leadership Nation Builder Honour awards Loyalty Commitment Colonialism Anti-Colonialism Imperialist Nationalism Racism Consciousness

SEQUENCE

Growing Together Nation Building Nation Builders change, conflict, culture, inter-dependence

SKILLS	ATTITUDES	POSSIBLE
		INTEGRATION
Do Research	Appreciate the sacrifices for their beliefs made by some	Language Arts
Conduct interviews	individuals in the past and in the present.	Religious Education
Make notes	· ·	
Give oral and written reports.	Appreciate the part played by both males and females in	
Debate issues	nation building.	
Discuss issues	Appreciate the personal fulfilment to be derived from	
Make valid judgement.	fighting for a cause or making a contribution.	
Provide evidence to support judgement.	Show appreciation for individual achievement and	
Make comparisons.	excellence during an individual's lifetime.	

SCOPE AND

Grade 9 Term II

Theme Unit 3:

Sub-Topic: D:
Organizing Concepts:

CONTENT	KNOWLEDGE	CONCEPTS
History of Garvey's early life. Economic, social and political conditions in Jamaica during Garvey's time. Garvey's involvement with the trade union movement and politics. Garvey's thoughts/ideas on racial pride, self-reliance, anti-colonialism, African/Black nationalism Garvey's organizations Garvey's imprisonment Garvey's status when he died Garvey as a national hero Garvey's legacy	Relate biographical data on Garvey. Social, economic and political climate in Jamaica during Garvey's time. The main thrust of Garvey's ideas. Discuss the role of the UNIA in advancing Garveys cause The attitude of Garvey's contemporaries to his ideas and activities. Impact of Garvey's ideas on Jamaica's movement to independence. Why Garvey was made a national hero.	Pan Africanism Caribbean National Self-reliance Colonial Anti-colonalism Racial pride Imperialism Racism Independence

SEQUENCE

Growing Together
Nation Building
Life and Work of Marcus Garvey
culture, change, conflict, identity

SKILLS	ATTITUDES	POSSIBLE
		INTEGRATION
Construct time line.	Show pride in one's race.	Language Arts
Do simulation activity	Accept that racial barriers are not insurmountable	Resource & Technology
Make posters	obstacles.	
Make rational reasoned judgements.	Appreciate the struggle of black people everywhere and	
Work co-operatively.	the advances made over time.	
Conduct interviews.	Appreciate that black	
Organize and participate in class/panel discussion.	consciousness does not necessarily mean racial/colour prejudice.	
	Demonstrate a commitment to action and progress.	
	Appreciate that the reward for hard work is not always immediate.	
	Appreciate that adversity provides challenge and opportunities for growth and development.	
	Appreciate the life and work of Marcus Garvey as a symbol of the triumph of the human of the human spirit.	

SCOPE AND

Grade 9 Term II Theme Unit 4:

Sub-Topic: A:

i) The United Nations, members functions and the structure of United Nations Organizations in Jamaica ii) The O.A.S in Jamaica State what is the United Nations, when it was founded and give reasons for the formation. Treaty State what is the United Nations, when it was founded and give reasons for the formation. Treaty State what is the United National Law State who is Jamaica's representative to the United Sanctions	ENT	KNOWLEDGE	CONCEPTS
iii)Jamaica as a member of Nations and when Jamaica	United Nations, abers functions and the cture of United Nations and in Jamaica O.A.S in Jamaica aica as a member of Common-Wealth of ons If the common is a second in the cture of United Nations in Jamaica If the common is a second in the cture of United Nations in Jamaica If the common is a second in the cture of United Nations in Jamaica If the cture of United	State what is the United Nations, when it was founded and give reasons for the formation. State who is Jamaica's representative to the United Nations and when Jamaica became a member, and describe the role of the representatives from member countries. Identify United Nations organizations in Jamaica. Describe giving examples the role of the U.N peace-keeping forces. Compare the role of the O.A.S in Jamaica with that of the U.N. Identify countries that are members of the Commonwealth of Nations. Describe Jamaica's position	Charter International Law Treaty Sanctions Commonwealth of nations Peace keeping

SEQUENCE

Growing Together Regional and Global Relations World Government change, conflict, culture

SKILLS	ATTITUDES	POSSIBLE INTEGRATION
Locate and name places on a world map.	Appreciate collaboration at the individual, group, international, national level.	Language Arts
Interpret information on maps and diagrams Sequence events	Appreciate the value of lessons learned from past	
Make comparisons.	Appreciate the fact that	
Debate issues.	individuals, groups, nations can all direct the future of our world.	
Compromise in issues	Appreciate the inter-	
	dependence of nations.	

SCOPE AND

Grade 9 Term II Theme Unit 4:

Sub-Topic: B:

CONTENT	KNOWLEDGE	CONCEPTS
European Union – ACP, Lome Convention	Define Trade Agreements and suggest why they are	Trade
Caribbean Basin Initiative	necessary.	Imports
CARICOM	Identify some Regional and International Trade	Exports
OECS	Agreements of which Jamaica and the Caribbean	Non-traditional
Forms of regional	are a part.	Developed/Developing Countries
cooperation.	Assess the benefits of CARICOM to member states	Levy
Information: CANA	of the Caribbean.	Bi-lateral
Transportation: BWIA, LIAT shipping lines: West Indies	Suggest any disadvantages to this type of regional	Multi-lateral
Cricket Team	integration in the Caribbean	Agreements
Finance: C.D.B.	Describe Jamaica's trade with other Caricom	Quota
	territories.	Tariffs Duty free
	Identify other forms of regional cooperation within Caricom and discuss their functions	Duty nee
	Explain what these organizations are European Union, ACP, Lome Convention and the C.B.I	
	State how these organizations assist Caribbean Territories	

SEQUENCE

Growing Together Regional and Global Relation Trade Agreements and Regional Economic Cooperation change, conflict, inter-dependence, identity

ATTITUDES	POSSIBLE INTEGRATION
ATTITUDES Appreciate the interdependence of people regionally and globally. Appreciate the advantages of cooperation to the individual nation and region.	POSSIBLE INTEGRATION Language Arts Mathematics
	Appreciate the interdependence of people regionally and globally. Appreciate the advantages of cooperation to the individual

SCOPE AND

Grade 9 Term III Theme Unit 5:

Sub-Topic: A:

CONTENT	KNOWLEDGE	CONCEPTS
Causes and consequences of	Discuss the causes of	Population
population growth.	population growth with	
M	specific reference to	Census
Measures to control population growth in some	Developing world.	Over population
countries of the world	Assesses the consequences	o res population
	of population growth.	Resources
Migration: internal and external	Discuss and compare	Birth rate
CALCINAL	measures taken to control	Bitti tate
Population growth: the 21 st century.	population growth.	Death rate
,	Assess impact of migration on the losing countries, and	Emigration
	on the receiving countries.	Immigration
		Development
		Developed
		Developing
		Population
		Mortality rate
		Population explosion
		Slum
		Shanty town

SEQUENCE

Social Issues

Population: Explosion

culture, change, conflict, inter-dependence,

SKILLS		
SKILLS	ATTITUDES	POSSIBLE
		INTEGRATION
Interpret maps, graphs, tables showing population data.	Develop a positive attitude to family planning.	Language Arts
Collect data by interviews and use of questionnaires.	Take responsibility for their actions.	Mathematics
and also of questionnaires.	actions.	Science
Present data in the form of tables, graphs.	Assume the responsibility to educate others about the	Resource & Technology
Make notes and summaries.	merits of a small family.	Art & Craft
Make comparisons.	Appreciate people as a valuable resource.	Home Economics
Give oral and written reports.		

SCOPE AND

Grade 9 Term III Theme Unit 5:

Sub-Topic: B:

CONTENT	KNOWLEDGE	CONCEPTS
Diet Local production	Explain why countries including Jamaica, find it necessary to import food.	Balanced diet Calories
_		Malnutrition
Uneven distribution of food.	Identify countries with serious problems of food	
Food imports	shortage.	Self-sufficiency
Global food shortage	Identify and discuss causes and effects of food shortage	Production
Global food aid	locally and globally.	Glut
Local food agencies	Explain the relationship between low nutrition and	Import
International food Aid	low productivity.	Export
FAO	Assess "food aid". Its social and economic costs.	Scarcity
UNESCO	Suggest ways of solving the	Nutrition
UNICEF	food shortage problem.	
Jobs in agriculture	Discuss the roles of agencies e.g. UNICEF, FAO.	
Attempts to solve food supply problems through agencies	UNESCO, RADA, CARDI	
e.g. RADA, CARDI Regional Food Plan	Regional Food plan in the Caribbean	
	Factors that influence nutrition	

SEQUENCE

Growing Together Social Issues Food Supply change, conflict, culture, inter-dependence

SKILLS	ATTITUDES	POSSIBLE
	ATTIODES	INTEGRATION
Establish cause and effect.	Appreciate the dignity of labour.	Language Arts
Manage money.	Display a positive attitude	Resource & Technology
Interpret tables and other graphic materials.	towards self-sufficiency.	Home Economics
Solve problems.	Be willing to find solutions to personal and local problems.	Agriculture
Locate places of particular food production.	Assume the responsibility to	
Make tables, charts, graphs. Research.	Educate others about the importance of self-sufficiency.	
Give oral and written reports	Appreciate the importance of agriculture to food supply and economic gain	
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	; ;	

SCOPE AND

Grade 9 Term III Theme Unit 5:

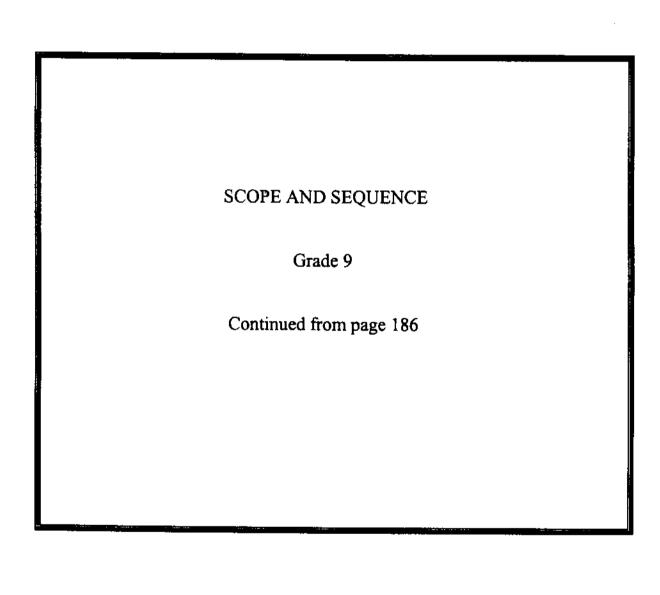
Sub-Topic: C:
Organizing Concepts:

CONTENT	KNOWLEDGE	CONCEPTS
Climate in relation to shelter, population growth and shelter need. Result of over crowding Types of shelter Culture and shelter. Building materials used. Historical buildings and responsibility for their maintenance Problems of shelter acquisition Institutions that assist people to acquire shelter. Safety in buildings. Impact on environment Construction workers. Future housing needs; shelter of the future	Discuss: Shelter as basic human need Relationship between shelter and climate Relationship between population growth and demand for shelter in two case studies Germany and Brazil Impact of demand on housing types and land use and environment Change in architecture with time. Solution to overcrowding. Role of institution in acquisition of shelter in Brazil and Germany and comparison with Jamaica. Role of workers in the building industry. Influence of natural hazards on building styles.	Slum, shanty town, shacks, apartment, condominium, tenancy tenement yard Yard Rent Mortgage Lease Overcrowding Habitat Inner Communities

SEQUENCE

GROWING TOGETHER Human Relations Shelter culture, conflict, inter-dependence, change

SKILLS	ATTITUDES	POSSIBLE INTEGRATION
Interpret graphic material Make models	Take pride in caring for their homes and the environment	Language Arts
Classify information	Appreciate the impact of culture on architecture.	Science Resource and technology
Establish cause and effect	Appreciate the importance of safety in the construction of buildings.	
Make comparisons		
Make choices Make notes and summaries		
Identify problems and suggest solutions		
Give oral and written reports		



THE SCOPE AND SEQUENCE OF SKILLS

GRADES 7-9

To learn how to do things is to learn a skill. A skill is defined as the ability to use one's understanding to accomplish a task effectively and readily. This ability is usually acquired after much regular practice and application in differing situations.

Categories of Skills

There are many ways to classify skills that are appropriate for inclusion in the Social Studies curriculum. This Guide focuses on five categories:

- Basic Communication Skills
- · Map and Graphic Skills
- Thinking Skills
- Valuing Skills
- Participation Skills

The skills are not exclusive to Social Studies. For example, all subject areas need and use thinking skills and basic communication skills, and all teachers should provide opportunities for students to develop these skills whether or not they are primarily taught/introduced in Language classes. Somewhat more unique to Social Studies are map skills, valuing skills and decision-making skills. The expectation is that there will be concentrated efforts on the development of these and that they will be reinforced in other subject areas so that students may be able to practise them in a variety of contexts.

The key used in the following table is to be interpreted as follows:

I = Introduce

D = Develop (systematically, in greater depth)

M = Maintain (extend and re-teach where necessary)

The sequencing is meant as a guide only: teachers know their students best and should be flexible in using it. Moreover, cross – subject planning should reveal the skills that have been introduced in other areas and at what level difficulty, and so help determine the students' present need.

TABLE SHOWING SKILLS TO BE LEARNT IN

<u>GRADI</u>			
SKILLS	GRADE 7	GRADE 8	GRADE 9
A. BASIC COMMUNICATION SKILLS			
1. Recognize vocabulary	M	M	M
2. Detect cause and effect relationship	I	I	D
3. Recognize author bias	I	D	D
4. Use Pictures to gain meaning	D	D	M
5. Select main ideas	I	D	M
 Use glossary, appendix, table of contents, index, dictionary, directory 	1	ĭ	I
7. Use community as a resource	I	I	I
8. Use newspapers, magazines, almanacs	1	D	D
9. Make notes	1	D	M
10. Use correct sentence structure	M	M	М
11. Prepare and write reports	I	I	I
12. Bargain with others			I
13. Persuade others	I	M	M
14. Debate a point of view	1	M	M
15. Give oral and written reports	I	D	D
16. Ask and answer questions precisely	D	D	D
17. Participate in class discussions	D	D	D
B. MAP and GRAPHIC SKILLS			
Use symbols to make or read maps and globes		D	
	<u> </u>		

	SKILLS	GRADE 7	GRADE 8	GRADE 9
2.	Identify and indicate the cardinal points		M	
3.	Locate places and physical features	D	D	D
4.	Use Scale to compute distance		1	М
5.	Make comparisons between places	М	M	М .
6.	Make and read time lines	I	D	D
7.	Places dates and events in chronological order	1	D	D
		I	D	D
8.	Make and read time lines	I	D	M
9.	Compute the length of time between two dates			
C.	THINKING OR INTELLECTUAL SKILLS	_	_	
	1. Ask relevant questions	I	D	M
		D	D	М
	2. Classify objects and information	D	D	D
	3. Devise accurate titles for events, stories			
	Pictures.	D	D	м
	4. Interpret, analyze, summarize, synthesize		D	
	and evaluate data			
	5. Draw reasoned conclusions	D	M	M
	3. Draw reasoned conclusions	D	M	М
	6. Make rational individual decisions	I	I	ī
	7. Justify conclusions/decisions	1	I	I
	8. Detect techniques of persuasion	I		D
	9. Form hypotheses	D	D	ן
		I	I	I
	10. Predict from the known	I	D	M
	11. Distinguish statements of facts from statements of opinion	1	D	141

SKILLS	GRADE 7	GRADE 8	GRADE 9
12. Distinguish relevant from irrelevant information	1	D	D
13. Form concepts and generalizations	D	D	м
14. Detect bias, propaganda or inconsistency	1	D	М
15. Assess the reliability of sources of information	I	1	D
16. Determine the strength of an agreement	1	1	D
D. VALUING SKILLS			
1. Identify their own values	1	D	D
2. Identify the value conflicts	 	D	D
3. Identify value conflicts	1	D	М
Arrange their values in order of importance		D	D
5. Provide evidence to support or refute a	1	D	D
particular value judgment 6. Make moral judgments (good or bad; right or wrong)	ı	D	ם
7. State alternatives			
8. Choose from alternatives	1	1	D
9. Act on their own choice	I	I	D
E. SOCIAL PARTICIPATION SKILLS	1	I	D
I. Teach peers		D	D
2. Describe their own feelings	D	D	D
3. Empathize with others		_	_

	SKILLS	GRADE 7	GRADE 8	GRADE 9
4.	Show respect for the rights of others	D	D	D
5.	Identify situations in which group decision making is required	D	D	М
6.	Make group decisions democratically	D	М	М
7.	Seek support for a plan of action	l l	1	М
8.	Organize group action and implement	D	D	D
9.	Organize and carry out a plan of action in the community	D	D	D
10.	Compromise	_		
11.	Vote	1	ı	D
12	Work to influence mountaining it	ļ	1	D
12.	Work to influence people in positions of social and political power in the wider community	I	1	I
13.	Cooperate			
14.	Act as group leaderships/members	D	М	М
15.	Contribute to group projects and outcomes	D	D	М
16.	Share group tasks equally	D	D	М
17.	Make rules	D	D	М
18.	Accept consequences for breaking rules	1	D	М
		1	D	м