

Primary School Curriculum

PreSchool (PS)



MINISTRY OF EDUCATION

Bermuda
2001

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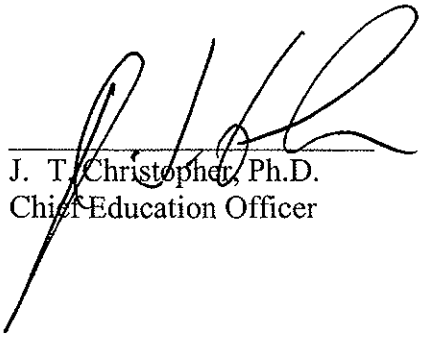
FOREWORD

Quality curriculum is basic to any educational programme. The written curriculum must provide the structure and substance of what is taught to all students. The written curriculum is a guide to teachers to ensure that the knowledge, skills, competencies and resources students need in order to learn are provided during instruction.

In particular, it is acknowledged that knowledge is virtually infinite in that it is continually changing and expanding as “new” knowledge is developed and “old” knowledge is refined. In addition the skills and competencies that students need change as the environment in the total community changes. It is important therefore that a school system has a structure for the instructional programme that provides direction, focus, flexibility and state-of-the-art thinking about each content area.

Because of its strategic geographical position, Bermuda has been influenced continuously by the changes in the relationship between the continents bordering the Atlantic -- North and South America, Africa and Europe. The current interest in the globalization of the world community allows Bermuda to build on its strength in international relations. It is essential that our students become accustomed to viewing the entire world as the area in which they must live and grow. They must integrate knowledge across all subjects in preparation for their adult life. Our curriculum guides must be viewed from this perspective.

A team of teachers, education officers and other persons within the school system and community, drawing from their collective experience in working with young people, has developed this curriculum guide. Input from community representatives on each Curriculum Advisory Committee has assisted us in Bermudianizing the curriculum. All of the contributors share both the pride and the responsibilities of authorship. This guide represents the essential elements of education in Bermuda’s preschool.



J. T. Christopher, Ph.D.
Chief Education Officer

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OVERVIEW

The aim of preschool is to provide for the academic achievement, personal development and group citizenship of young children. In keeping with this aim, the organizational patterns appropriate to the developmental needs of four and five year-old students need to be provided.

The curriculum is composed of a common body of knowledge with emphasis placed on mastery skills and achievement measured according to each student's abilities. The development of positive attitudes toward learning, self and others is a basic component of Bermuda's preschool programme. The programme is based on the belief that all students make every effort to succeed when in an environment that fosters and encourages success, regardless of their background or previous level of achievement. Educational development at the preschool level should provide adequate preparation for continued experiences. To create an atmosphere of accomplishment in which each student has opportunities for growth, emphasis is placed on:

- opportunities for sharing enriching experiences, creative expressions and exposure to ideas
- enhancement of personal abilities with opportunities to pursue and express them through diversity and supportive activities
- development of a growing sense of responsibility, integrity, self-discipline, reliable judgement and self-respect in each student
- encouragement of acceptance of their roles and responsibilities in the educational process with confidence, enthusiasm and appropriate social and academic behaviours
- provisions of time and opportunity for ethical growth and for the development of responsible values and character

The curriculum guide contains three (3) sections beginning with the Introduction. The cited twelve goals of education direct instructional outcomes in all preschool subjects. Specifically, a curriculum framework has been approved for each subject and is to be used as the basis for the subject specific philosophy, goals and subgoals, performance indicators and scope and sequence. Effective utilization of this framework will establish continuity and progression of instruction throughout all year levels.

The second section of this guide delineates the preschool programme of instruction and contains an overview for Phase A that includes: the rationale, year level requirements, adopted materials of instruction, phase outline, correlation matrix and modules. It is expected that all teachers will focus instruction on the established curriculum objectives outlined in the modules. The final section of this guide contains resources of valuable support for teachers.

GOALS OF EDUCATION

In Bermuda, the Goals of Education provide the direction for preschool level education. These twelve (12) goals enable preschool level students to:

- develop responsiveness to the dynamic process of learning
- develop resourcefulness, adaptability and creativity in learning and living
- acquire the basic knowledge and skills needed to comprehend and express ideas through words, numbers and other symbols
- develop a wellness approach to life
- gain satisfaction from participating in and appreciating the various forms of artistic expression
- develop a feeling of self-worth
- develop values related to personal and ethical beliefs and to the common welfare of society
- develop an understanding of the role of the individual within a family unit, the role of the family within society and the role of our society in a global context
- develop a sense of personal responsibility in society at the national and international levels
- acquire skills that contribute to self-reliance in solving practical problems in everyday life
- acquire skills and attitudes that will lead to satisfaction and productivity in a career
- develop respect for the environment and a commitment to the wise use of resources.

CURRICULUM AND INSTRUCTION FOR ALL STUDENTS

All preschools will have common programmes designed to offer eight subjects to all students and to give them a knowledge base that will equip them with a foundation that will prepare them to move to the primary school level. There will be a basic core curriculum that will include English language arts, mathematics, science and social studies. These subjects will be supported by a variety of encore subjects, such as health education, physical education, music and visual arts. An integrated curriculum is a meaningful approach to preschool instruction that assists students to transfer knowledge within and across all subjects and apply skills and processes developed in subjects to real life Bermuda issues.

It is expected that the implemented curriculum will be based on the premise that all students can learn and that instruction should be differentiated to meet the unique needs of the learner. Further, it is expected that the preschool curriculum will be implemented from a Bermudianized and multicultural perspective as much as is feasible.

Health Education



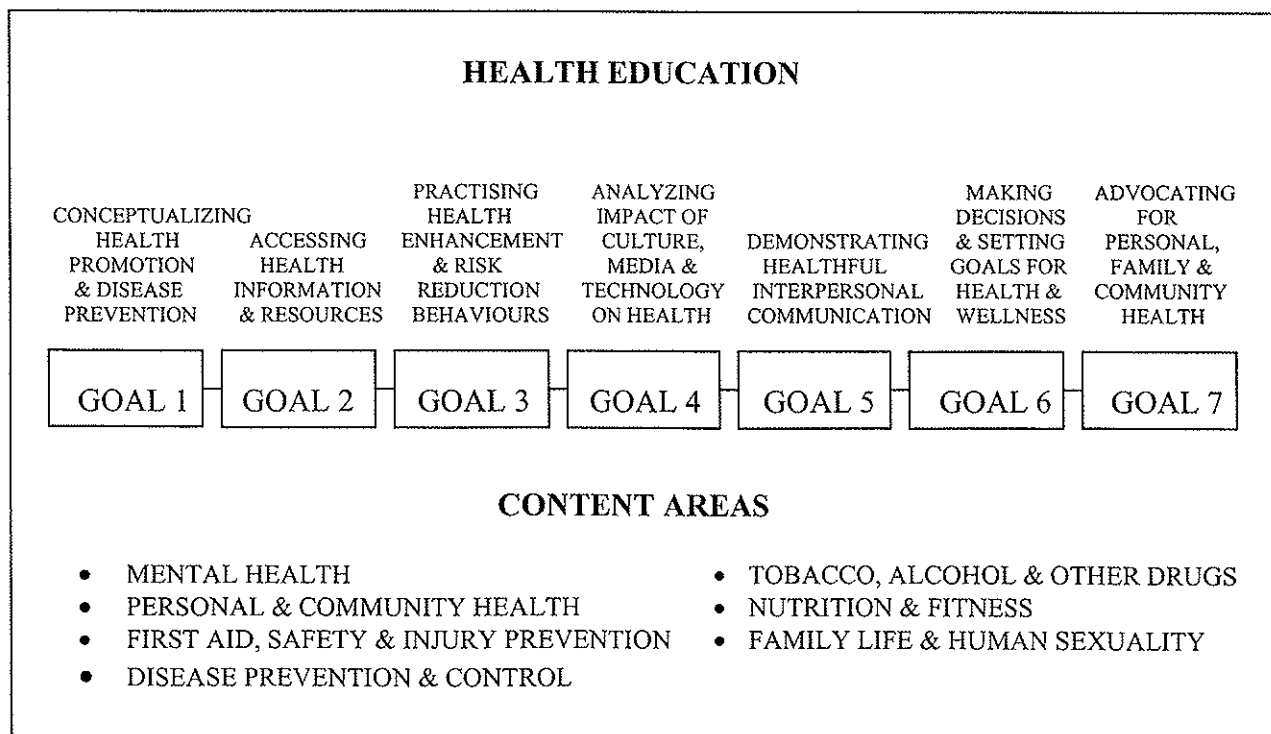
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HEALTH EDUCATION PHILOSOPHY

School Health Education focuses on the prevention of health problems. It is designed to assist students in the development of healthful behaviours that are based on the application of health literacy and thinking skills to scientific knowledge. Health Education is firmly rooted in medicine, public health, social/behavioural sciences and education and emphasizes the physical, mental, emotional, spiritual and social aspects of wellness. Health education provides activities that help young people not only develop the skills they will need to avoid prevalent childhood and adolescent health risks, but prepares them for responsible adult living. School health education should involve youth, staff, families and the community. Health Education emphasizes instruction about health careers, health literacy information retrieval, application of critical and creative thinking skills and the study of values and ethics as related to the development of wholesome lifestyles and access to effective health care.

Despite many medical advances in this century, our Bermudian community is faced with perhaps a new dilemma, that of chronic diseases resulting from unhealthy lifestyles and environmental hazards. Risk factors such as inappropriate dietary patterns, stress, sedentary living and the abuse of tobacco, alcohol and other drugs contribute to a variety of health problems. The health education curriculum focuses on modification of these risk factors. Ultimately, the community, churches and schools should view themselves as health educator partners, collaboratively functioning to support parents, the primary health educators, in addressing the health needs and interests of young people. Together, we all should encourage young people to make healthful decisions and behavioural choices based on an ethic which fosters their health and wellness.



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Teachers with the leadership and support of K. Joan Blades, Education Officer, Health Education and Science developed the Health Education pre/primary school curriculum. This writing team was comprised of diligent and devoted teachers. Appreciation is extended to these teachers for their ability to collaborate amicably and collegially in the production of this professional document. The members of the writing team were:

Angela Edwards
Carla John
Norma-Jean Richardson
Sharon Wilkinson

The restructured curriculum development process began in 1994 under the leadership of Dr. Helen Stemler, Restructuring Curriculum Coordinator. During 1994-1995, the writing teams in the various content areas developed the frameworks for the entire curriculum development process. From 1995-1997 the curricula for the middle level were created. Thanks also to Dr. Gina Tucker, curriculum coordinator 1998-1999. Special thanks to Mrs. Kalreta Conyers-Steede, Education Officer, Business Studies, who coordinated the final production of these curriculum documents 1999-2001.

These documents would not have been completed without the support of a very hardworking, dedicated group of people - the secretarial/support staff who typed and assisted with numerous tasks associated with completing these documents. This group includes the following persons:

Johnnel Booth	Judy Lawrence
Marilyn Dyer	Kim Simons
Lavern Furbert	Theresa Simons
Raquel Furbert	Wanda Stuhlpfarrer
Terrylynn Gibbons	Deshan Thompson
Donna Jacobs	Rochelle Trott

Diana Madeiros – Professional Editor

HEALTH EDUCATION GOALS AND SUBGOALS

GOAL 1 CONCEPTUALIZING HEALTH PROMOTION AND DISEASE PREVENTION

STUDENTS WILL COMPREHEND HEALTH PROMOTION AND DISEASE PREVENTION CONCEPTS.

- Subgoal 1.1** Analyze the potential impact of common risk behaviours on the quality of life.
- Subgoal 1.2** Analyze the changing relationships of mental, emotional, social, spiritual and physical health throughout life.
- Subgoal 1.3** Analyze how the family, peers and community influence the health of individuals.
- Subgoal 1.4** Evaluate the interrelationship between the environment and community health.
- Subgoal 1.5** Identify ways to delay onset and reduce the risks of health problems which may be encountered during one's lifetime.
- Subgoal 1.6** Analyze how the prevention and control of health problems have been altered by research and medical advances.
- Subgoal 1.7** Analyze how public health policies and laws function in the prevention and control of disease.
- Subgoal 1.8** Demonstrate an ability to use methods of health promotion and disease prevention.

GOAL 2 ACCESSING HEALTH INFORMATION AND RESOURCES

STUDENTS WILL ACCESS VALID HEALTH INFORMATION AND UNDERSTAND HOW TO ACCESS APPROPRIATE HEALTH PRODUCTS AND SERVICES.

- Subgoal 2.1** Discriminate between reliable and unreliable health information, products and services and be aware of services available in the community.
- Subgoal 2.2** Describe factors that influence personal selection of health care resources, products and services.

- Subgoal 2.3** Analyze data from multiple sources needed to make informed decisions about health information, products and services.
- Subgoal 2.4** Analyze situations that require professional health services.
- Subgoal 2.5** Demonstrate the ability to access individuals and agencies that provide support and protection.
- Subgoal 2.6** Be aware of health care costs and availability of insurance for determining the extent of coverage for the prevention and treatment of health problems.

GOAL 3 **PRACTISING HEALTH ENHANCEMENT AND RISK REDUC-TION BEHAVIOURS**

STUDENTS WILL DEMONSTRATE THE ABILITY TO PRACTISE HEALTH ENHANCING BEHAVIOURS AND REDUCE HEALTH RISKS.

- Subgoal 3.1** Analyze the role of individual responsibility for reducing or managing health risks.
- Subgoal 3.2** Assess risk factors to determine personal responsibility for health.
- Subgoal 3.3** Distinguish between appropriate and inappropriate behaviour in relationships as they affect health.
- Subgoal 3.4** Develop strategies to improve or maintain personal, family and community health and wellness.
- Subgoal 3.5** Develop injury prevention strategies for personal, family and community health.
- Subgoal 3.6** Develop responses to a range of situations involving physical injury.
- Subgoal 3.7** Demonstrate methods of avoiding threatening situations.
- Subgoal 3.8** Demonstrate actions for dealing with individuals exhibiting dangerous behaviours.
- Subgoal 3.9** Develop strategies to identify and manage sources of stress.

GOAL 4 **ANALYZING IMPACT OF CULTURE, MEDIA AND TECHNOLOGY ON HEALTH**

STUDENTS WILL ANALYZE THE IMPACT OF CULTURE, MEDIA, TECHNOLOGY AND OTHER FACTORS ON HEALTH.

- Subgoal 4.1** Analyze how cultural diversity enriches and challenges healthful behaviours.
- Subgoal 4.2** Analyze how culture and the media impacts on personal, family and community health.
- Subgoal 4.3** Analyze the role of government in regulating advertising claims related to health.
- Subgoal 4.4** Describe ways technology can influence health and wellness.
- Subgoal 4.5** Analyze the influence that school, peers and family have on health and wellness.

GOAL 5 **DEMONSTRATING HEALTHFUL INTERPERSONAL COMMUNICATION**

STUDENTS WILL DEMONSTRATE HEALTHFUL INTERPERSONAL COMMUNICATION.

- Subgoal 5.1** Interpret verbal and non-verbal communication.
- Subgoal 5.2** Demonstrate skills for communicating effectively with family and friends.
- Subgoal 5.3** Evaluate the result of open and honest communication in relationships.
- Subgoal 5.4** Demonstrate ways to effectively communicate care, consideration and respect of self and others.
- Subgoal 5.5** Demonstrate a variety of strategies for solving interpersonal conflicts without harm to self or others.
- Subgoal 5.6** Demonstrate refusal and negotiation skills to avoid potentially harmful or exploitative situations.
- Subgoal 5.7** Analyze the possible causes of conflict in schools and communities.
- Subgoal 5.8** Demonstrate strategies used to reduce conflict among young adults in schools and communities.

GOAL 6 **MAKING DECISIONS AND SETTING GOALS FOR HEALTH AND WELLNESS**

STUDENTS WILL DEMONSTRATE THE ABILITY TO USE DECISION MAKING AND GOAL SETTING SKILLS WHICH ENHANCE HEALTH.

- Subgoal 6.1** Demonstrate the ability to utilize various strategies when making decisions related to the health needs and risks of young adults.
- Subgoal 6.2** Analyze health concerns that require collaborative decision making.
- Subgoal 6.3** Predict immediate and long term impact of health decisions on the individual, family and community.
- Subgoal 6.4** Establish a plan for attaining a personal health goal.
- Subgoal 6.5** Evaluate progress toward achieving personal health goals.
- Subgoal 6.6** Develop an effective plan for lifelong health promotion and disease prevention.

GOAL 7 **ADVOCATING FOR PERSONAL, FAMILY AND COMMUNITY HEALTH**

STUDENTS WILL ADVOCATE FOR PERSONAL, FAMILY AND COMMUNITY HEALTH.

- Subgoal 7.1** Evaluate the impact of various communication methods which accurately express health information and ideas.
- Subgoal 7.2** Express ideas and opinions on health issues by composing a multi media presentation.
- Subgoal 7.3** Utilize strategies to overcome barriers when communicating information, ideas, feelings and opinions on health issues.
- Subgoal 7.4** Use communication skills for working cooperatively with others to advocate for healthy communities.
- Subgoal 7.5** Demonstrate the ability to influence and support others in making positive health choices.
- Subgoal 7.6** Demonstrate the ability to adapt health messages and communication techniques to the characteristics of a particular audience.

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Wisconsin Department of Public Instruction. A Guide to Curriculum Planning in Health Education. Madison: Wisconsin Department of Public Instruction, 1994.

Mathematics



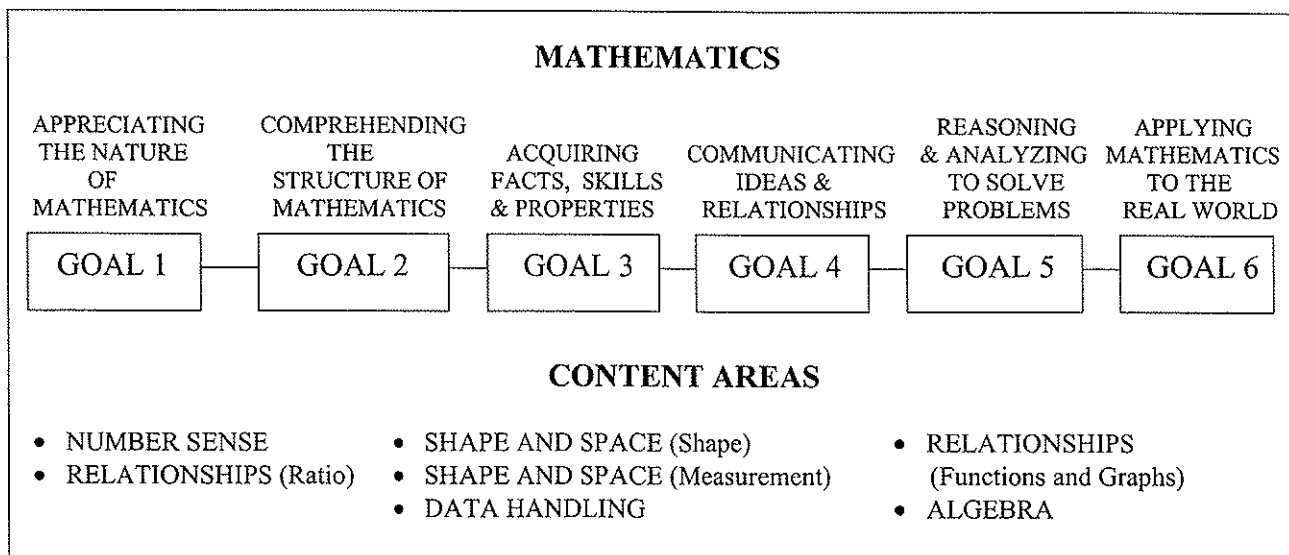
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MATHEMATICS PHILOSOPHY

Mathematics is an interrelated body of knowledge consisting of patterns, multiple representations and abstract concepts. It is a sequential discipline that builds on accumulated knowledge. Therefore, the mathematics curriculum is designed to foster meaningful classroom communication, explore important mathematical concepts, develop rich environments for teaching and learning, and promote technology as an educational tool.

Through the use of developmentally appropriate tasks, manipulatives and real world issues, the students will be empowered to transition from concrete experiences to the development of abstract mathematical ideas. They will be encouraged to construct their own meaning of mathematical ideas, to apply effective problem-solving processes and to appreciate the importance of mathematics in their world and the global society in which we live.



ACKNOWLEDGEMENTS

The Mathematics pre/primary school curriculum was developed by teachers with the leadership and support of Marlette Darrell and Marva Allen, Education Officers, Mathematics. This writing team was comprised of diligent and devoted teachers. Appreciation is extended to these teachers for their ability to collaborate amicably and collegially in the production of this professional document. The members of the writing team were:

Helen Alban
Karen Burch
Laurie Daniels
Diane Hunt
Laverne Lau
OBrien Osbourne
Makeba Stowe
Dorothy Trott

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Lavern Furbert	Theresa Simons
Raquel Furbert	Wanda Stuhlpfarrer
Terrylynn Gibbons	Deshan Thompson
Donna Jacobs	Rochelle Trott

Diana Madeiros – Professional Editor

**MATHEMATICS
GOALS AND SUBGOALS**

GOAL 1 APPRECIATING THE NATURE OF MATHEMATICS

STUDENTS WILL APPRECIATE THE NATURE OF MATHEMATICS.

- Subgoal 1.1** Apply mathematics as an interrelated body of knowledge.
- Subgoal 1.2** Display confidence through successful experiences in mathematics.
- Subgoal 1.3** Appraise the significance of mathematics in history, culture and our changing society.

GOAL 2 COMPREHENDING THE STRUCTURE OF MATHEMATICS

STUDENTS WILL COMPREHEND THE STRUCTURE OF MATHEMATICS.

- Subgoal 2.1** Analyze the structure of the real number system.
- Subgoal 2.2** Appreciate the similarity of number systems.
- Subgoal 2.3** Evaluate concepts, processes and patterns.
- Subgoal 2.4** Analyze mathematical theorems.
- Subgoal 2.5** Interpret the logic and purpose of algebraic procedures.

GOAL 3 ACQUIRING FACTS, SKILLS AND PROPERTIES

STUDENTS WILL ACQUIRE MATHEMATICAL FACTS, SKILLS, CONCEPTS AND PROPERTIES.

- Subgoal 3.1** Evaluate applications of numbers and number theory concepts in mathematical and real world situations.
- Subgoal 3.2** Evaluate a mathematical solution by using estimation.
- Subgoal 3.3** Evaluate mathematical representations numerically, algebraically and geometrically.
- Subgoal 3.4** Evaluate data appropriately.

- Subgoal 3.5** Evaluate the application of geometric and measurement properties to real world situations.
- Subgoal 3.6** Apply algebraic procedures to solve a variety of problems.
- Subgoal 3.7** Evaluate the interrelationships among mathematics, media and technology.

GOAL 4 **COMMUNICATING IDEAS AND RELATIONSHIPS**

STUDENTS WILL COMMUNICATE MATHEMATICAL IDEAS AND RELATIONSHIPS.

- Subgoal 4.1** Justify their mathematical ideas and relationships.
- Subgoal 4.2** Evaluate the use of mathematical symbols, formulas and terminology.
- Subgoal 4.3** Reorganize mathematical ideas in oral and written form.
- Subgoal 4.4** Communicate algebraical generalizations discovered through investigations.
- Subgoal 4.5** Value the role of symbolic notations in mathematics.
- Subgoal 4.6** Demonstrate skillful use of manipulatives and technology.
- Subgoal 4.7** Evaluate the use of appropriate manipulatives and technology to display mathematical ideas and relationships.

GOAL 5 **REASONING AND ANALYSING TO SOLVE PROBLEMS**

STUDENTS WILL REASON AND ANALYZE MATHEMATICALLY TO SOLVE PROBLEMS AND MAKE DECISIONS.

- Subgoal 5.1** Display confidence in solving problems independently.
- Subgoal 5.2** Evaluate information to reason, solve problems and generalize.
- Subgoal 5.3** Confidently use manipulatives and technology in problem solving.
- Subgoal 5.4** Apply skillful mathematical thinking and modelling to problems that arise in mathematics and other disciplines.
- Subgoal 5.5** Evaluate solutions for reasonableness and accuracy.

Subgoal 5.6 Evaluate applications of mathematical modelling processes to real world problems.

GOAL 6 **APPLYING MATHEMATICS TO THE REAL WORLD**

**STUDENTS WILL APPLY MATHEMATICS IN PERSONAL,
CAREER AND SOCIETAL SETTINGS.**

Subgoal 6.1 Adapt the use of mathematical processes and problem solving strategies.

Subgoal 6.2 Design a new application of mathematical tools and techniques.

Subgoal 6.3 Use mathematics to solve real world issues.

Subgoal 6.4 Justify the application of mathematical ideas as a lifelong process.

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Music

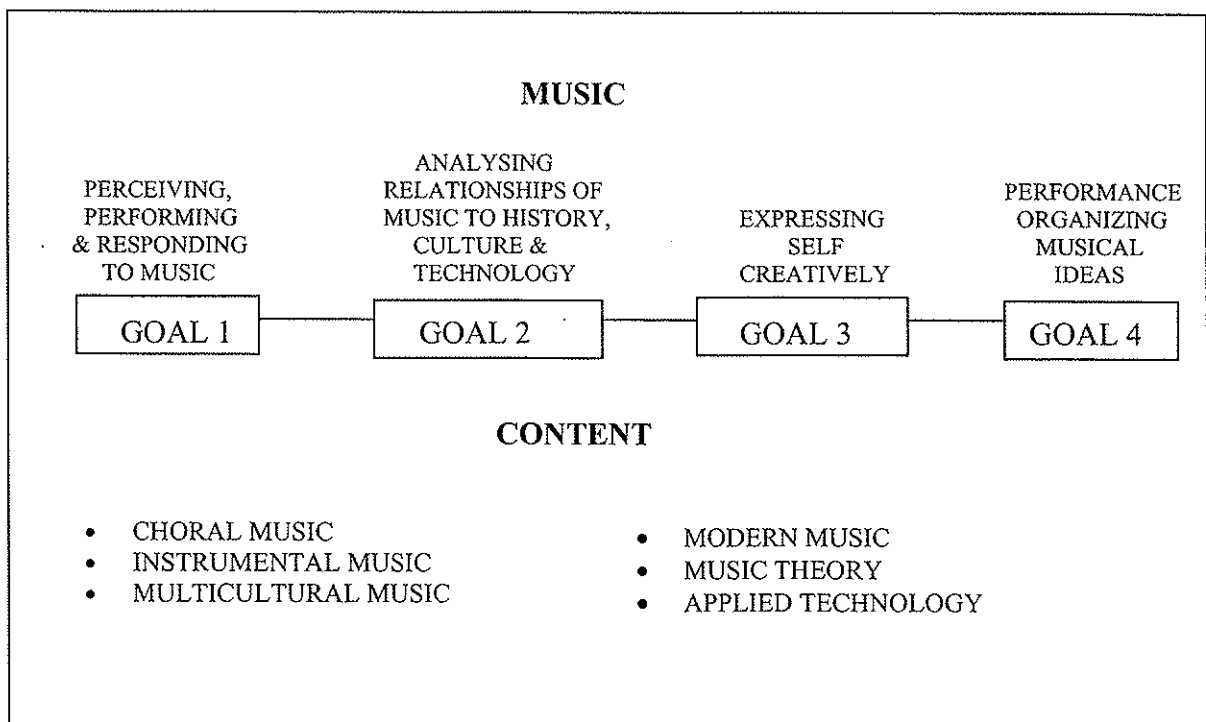


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MUSIC PHILOSOPHY

Through the study of music, students will learn to appreciate, perform and produce music. Music is often expressed for social, ritual, cultural and other purposes and is used to communicate inner feelings. Further, musical experiences sensitize our young people while increasing their aesthetic awareness. Singing, playing instruments and movement to music allow students to develop skills and knowledge in a creative and stimulating way. Students will also learn to read and notate music in cooperative groups and independently. Thus, learning through music will have the potential to enhance creative and critical thinking which can ultimately improve the quality of life in Bermuda.



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The Music pre/primary school curriculum was developed by teachers with the leadership and support of Shangi-la-Durham-Thompson, Education Officer, The Arts. This writing team was comprised of diligent and devoted teachers. Appreciation is extended to these teachers for their ability to collaborate amicably and collegially in the production of this professional document. The members of the writing team were:

Lonelle Ponton
Deon Flash
Chris Lambert
Kimberley Simmons

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Diana Madeiros – Professional Editor

**MUSIC
GOALS AND SUBGOALS**

GOAL 1 PERCEIVING, PERFORMING AND RESPONDING TO MUSIC

STUDENTS WILL DEVELOP TECHNIQUES AND SKILLS THAT WILL ENHANCE THEIR ABILITY TO PERCEIVE, PERFORM AND RESPOND TO MUSIC.

- Subgoal 1.1** Synthesize an understanding of the language of music.
- Subgoal 1.2** Develop an understanding of music as a way to create and communicate meaning.
- Subgoal 1.3** Analyse music principles, processes and structures.
- Subgoal 1.4** Develop an acceptable level of physical conditioning for music.

GOAL 2 ANALYSING RELATIONSHIPS OF MUSIC TO HISTORY, CULTURE AND TECHNOLOGY

STUDENTS WILL ANALYSE THE INTERRELATIONSHIPS OF MUSIC HISTORY, CULTURE AND TECHNOLOGY.

- Subgoal 2.1** Recognise music as a form of individual and cultural expression.
- Subgoal 2.2** Categorise musical philosophies, styles and genres.
- Subgoal 2.3** Analyse the relationship between music and technology.
- Subgoal 2.4** Analyse interrelationships between music and other arts.
- Subgoal 2.5** Evaluate connections between music and other disciplines.

GOAL 3 EXPRESSING SELF CREATIVELY

STUDENTS WILL DEVELOP THE ABILITY TO CREATIVELY EXPRESS THEMSELVES, COMPOSE AND PERFORM MUSIC.

- Subgoal 3.1** Create music through improvisation.
- Subgoal 3.2** Perform interpretive music.
- Subgoal 3.3** Apply thinking skills in music.
- Subgoal 3.4** Design original music compositions.
- Subgoal 3.5** Enhance performance competencies for music.

GOAL 4 **PERFORMANCE ORGANIZING MUSICAL IDEAS**

STUDENTS WILL DEVELOP THE ABILITY TO MAKE AESTHETIC JUDGMENTS THROUGH MUSICAL EXPERIENCES.

Subgoal 4.1 Apply criteria for assessment of musical performance.

Subgoal 4.2 Display sensitivity in applying aesthetic criteria to one's own musical performance.

Subgoal 4.3 Develop a continuing appreciation for the aesthetics of music.

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Physical Education

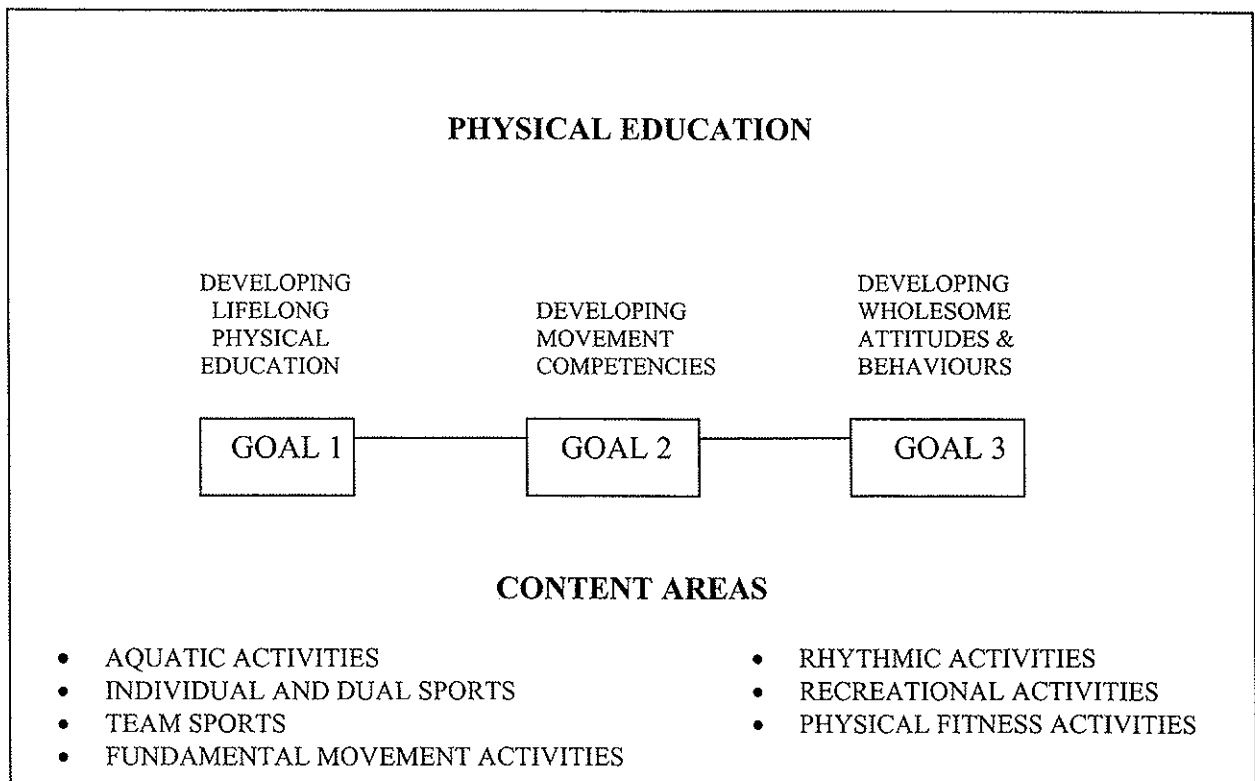


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PHYSICAL EDUCATION PHILOSOPHY

Physical Education is that unique part of the total educational experience which contributes to the physical, social and emotional development of the student through physical activity. Fundamental movement, sport and rhythmic skills and fitness activities are explored through a broad spectrum of sequentially planned activities in which students learn to move skillfully and effectively. These skills are further enhanced by a thorough knowledge and understanding of the underlying mechanics, principles and concepts for proper utilization of these skills. Along with this motor skill control, students learn to work independently and cooperatively. They are provided with opportunities to combine their knowledge, skills, ingenuity and perseverance in order to cope with new and challenging situations. Physical Education provides a non-threatening, healthful and safe environment for experimenting with new movement and behaviour patterns. It should provide an opportunity to develop self-confidence and a positive self-concept as well as opportunities to deal with success and temporary failures.



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The Physical Education pre/primary school curriculum was developed by teachers with the leadership and support of Clint Smith, Education Officer, Physical Education and Athletics. This writing team was comprised of diligent and devoted teachers. Appreciation is extended to these teachers for their ability to collaborate amicably and collegially in the production of this professional document. The members of the writing team were:

Lesley Butterworth
Anne Hines
Linda Hines
Darren Lewis

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**PHYSICAL EDUCATION
GOALS AND SUBGOALS**

GOAL 1 DEVELOPING LIFELONG PHYSICAL EDUCATION

**STUDENTS WILL DEVELOP LIFELONG PHYSICAL FITNESS
COMPETENCIES.**

- Subgoal 1.1** Demonstrate an acceptable level of health fitness
- Subgoal 1.2** Assess personal fitness
- Subgoal 1.3** Analyse a plan for personal fitness and physical conditioning
- Subgoal 1.4** Demonstrate proper body alignment
- Subgoal 1.5** Apply principle of body alignment to efficient movement
- Subgoal 1.6** Demonstrate a knowledge of fitness principles which contribute to the quality of life
- Subgoal 1.7** Demonstrate the ability to use goal setting and decision making in nutrition, weight control and performance
- Subgoal 1.8** Advocate for an appreciation for lifelong physical fitness
- Subgoal 1.9** Demonstrate effective rest, relaxation and stress management techniques

GOAL 2 DEVELOPING MOVEMENT COMPETENCIES

STUDENTS WILL DEVELOP MOVEMENT COMPETENCIES.

- Subgoal 2.1** Perform a wide variety of fundamental movement, sport and rhythmic activities
- Subgoal 2.2** Enhance efficient and creative movement through physical activity
- Subgoal 2.3** Demonstrate an appreciation for efficient and creative sport, rhythmic and movement activities
- Subgoal 2.4** Demonstrate knowledge of elements essential to the effective and efficient performance of fundamental movement, sport and rhythmic activities
- Subgoal 2.5** Demonstrate the ability to advocate for wholesome applications of games, sport and rhythmic activities in leisure time

GOAL 3 **DEVELOPING WHOLESOME ATTITUDES AND BEHAVIOURS**

STUDENTS WILL DEVELOP WHOLESOME ATTITUDES AND BEHAVIOURS.

- Subgoal 3.1** Demonstrate a positive concept of self in fundamental movement, sport and rhythmic activities
- Subgoal 3.2** Demonstrate appropriate social and emotional behaviour in physical activity settings
- Subgoal 3.3** Demonstrate self direction in physical activity environments
- Subgoal 3.4** Demonstrate an appreciation for individual differences within physical activity environments
- Subgoal 3.5** Demonstrate enhanced interpersonal communication skills
- Subgoal 3.6** Analyse career possibilities in physical education and related areas which are of interest to them

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Science

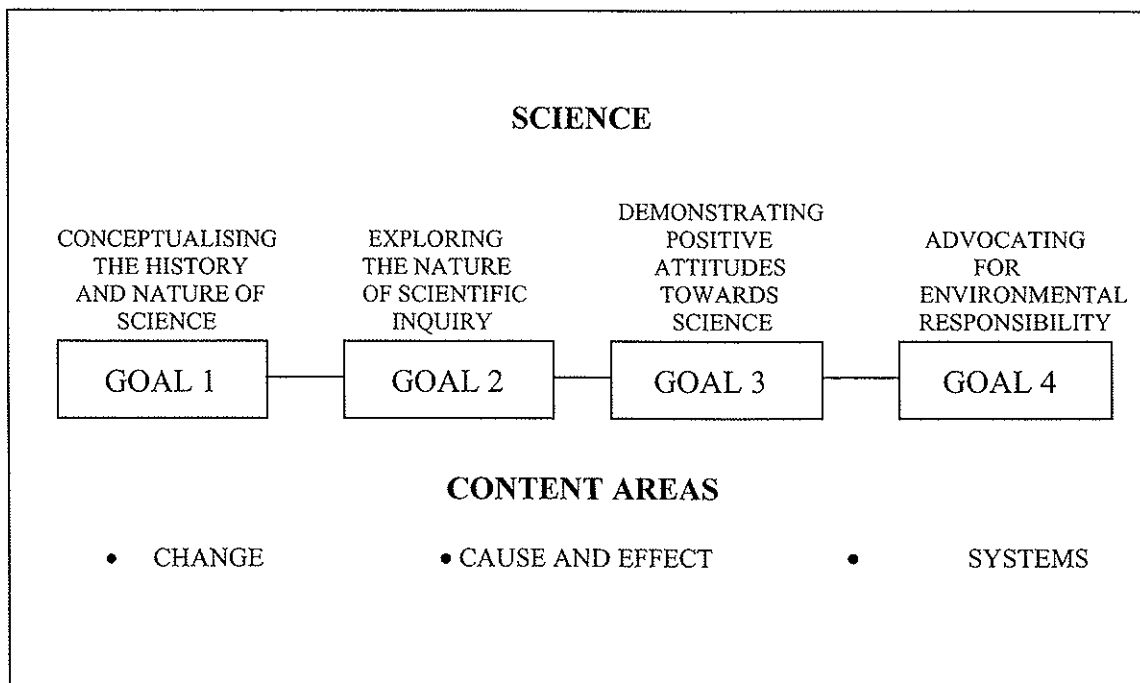


MINISTRY OF EDUCATION

Bermuda
2001

SCIENCE PHILOSOPHY

Science Education is a process by which students are provided with the opportunity to explore and investigate our world through instructional approaches which will not only meet the need and learning style of each student but also be linked to other areas of learning. The fundamental goal is to prepare all students to be scientifically literate and be empowered to make informed choices concerning personal, societal, environmental and technological issues. Science Education should foster an appreciation and a sense of responsibility for our future.



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The Science pre/primary school curriculum was developed by teachers with the leadership and support of K. Joan Blades and Joseph Ratteray, Education Officers, Science and Health Education. This writing team was comprised of diligent and devoted teachers. Appreciation is extended to these teachers for their ability to collaborate amicably and collegially in the production of this professional document. The members of the writing team were:

Kalley Baxter-Williams
Karen Bramlett
Kenneth Cobham
Kim Creighton
Uneaka Daniels
Marion Dyer
Mary Winchell
Emma Saunders

The restructured curriculum development process began in 1994 under the leadership of Dr. Helen Stemler, Restructuring Curriculum Coordinator. During 1994-1995, the writing teams in the various content areas developed the frameworks for the entire curriculum development process. From 1995-1997 the curricula for the middle level were created. Thanks also to Dr. Gina Tucker, Curriculum Coordinator 1998-1999. Special thanks to Mrs. Kalreta Conyers-Steede, Education Officer, Business Studies, who coordinated the final production of these curriculum documents 1999-2001.

These documents would not have been completed without the support of a very hardworking, dedicated group of people - the secretarial/support staff who typed and assisted with numerous tasks associated with completing these documents. This group includes the following persons:

Johnnel Booth	Judy Lawrence
Marilyn Dyer	Kim Simons
Lavern Furbert	Theresa Simons
Raquel Furbert	Wanda Stuhlpfarrer
Terrylynn Gibbons	Deshan Thompson
Donna Jacobs	Rochelle Trott

Diana Madeiros – Professional Editor

SCIENCE EDUCATION GOALS AND SUBGOALS

GOAL 1 CONCEPTUALISING THE HISTORY AND NATURE OF SCIENCE

STUDENTS WILL CONCEPTUALISE THE HISTORY AND NATURE OF SCIENCE.

- Subgoal 1.1** Evaluate how science has evolved over time through contributions of persons from diverse cultures.
- Subgoal 1.2** Use scientific knowledge to explain common themes in science and to show the connections between sciences and other disciplines.
- Subgoal 1.3** Evaluate the impact of scientific knowledge on personal health and health technologies.
- Subgoal 1.4** Conceptualise the interdependence of mathematics, science and technology.
- Subgoal 1.5** Analyse how scientists use a variety of methods to investigate nature and solve problems.

GOAL 2 EXPLORING THE NATURE OF SCIENTIFIC INQUIRY

STUDENTS WILL EXPLORE THE NATURE OF SCIENTIFIC INQUIRY.

- Subgoal 2.1** Formulate questions and develop hypotheses to explain behaviour of objects and events.
- Subgoal 2.2** Design and conduct a scientific inquiry to collect valid and reliable data to test a law, theory or hypothesis.
- Subgoal 2.3** Make precise observations and measurements; present data and results clearly, appropriately, accurately in multiple ways.
- Subgoal 2.4** Use technology to improve investigations and communication of outcomes.
- Subgoal 2.5** Construct explanations using logic and data, recognizing the limitations of scientific knowledge.
- Subgoal 2.6** Evaluate alternative explanations about scientific claims.

Subgoal 2.7 Defend a scientific argument and the results of a scientific inquiry.

Subgoal 2.8 Evaluate information selected from multiple sources: investigations, computer data bases, print, the Internet, video and other non print media.

GOAL 3 **DEMONSTRATING POSITIVE ATTITUDES TOWARDS SCIENCE**

STUDENTS WILL DEMONSTRATE POSITIVE ATTITUDES TOWARDS SCIENCE.

Subgoal 3.1 Formulate a plan to use science in home, school and community life.

Subgoal 3.2 Recognise pattern and aesthetics in the environment.

Subgoal 3.3 Analyse the application of ethical principles to science.

Subgoal 3.4 Evaluate career options that relate to science.

GOAL 4 **ADVOCATING FOR ENVIRONMENTAL RESPONSIBILITY**

STUDENTS WILL ADVOCATE FOR ENVIRONMENTAL RESPONSIBILITY.

Subgoal 4.1 Advocate for environmental stewardship.

Subgoal 4.2 Evaluate the use of scientific information to make judgments on environmental issues.

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Social Studies

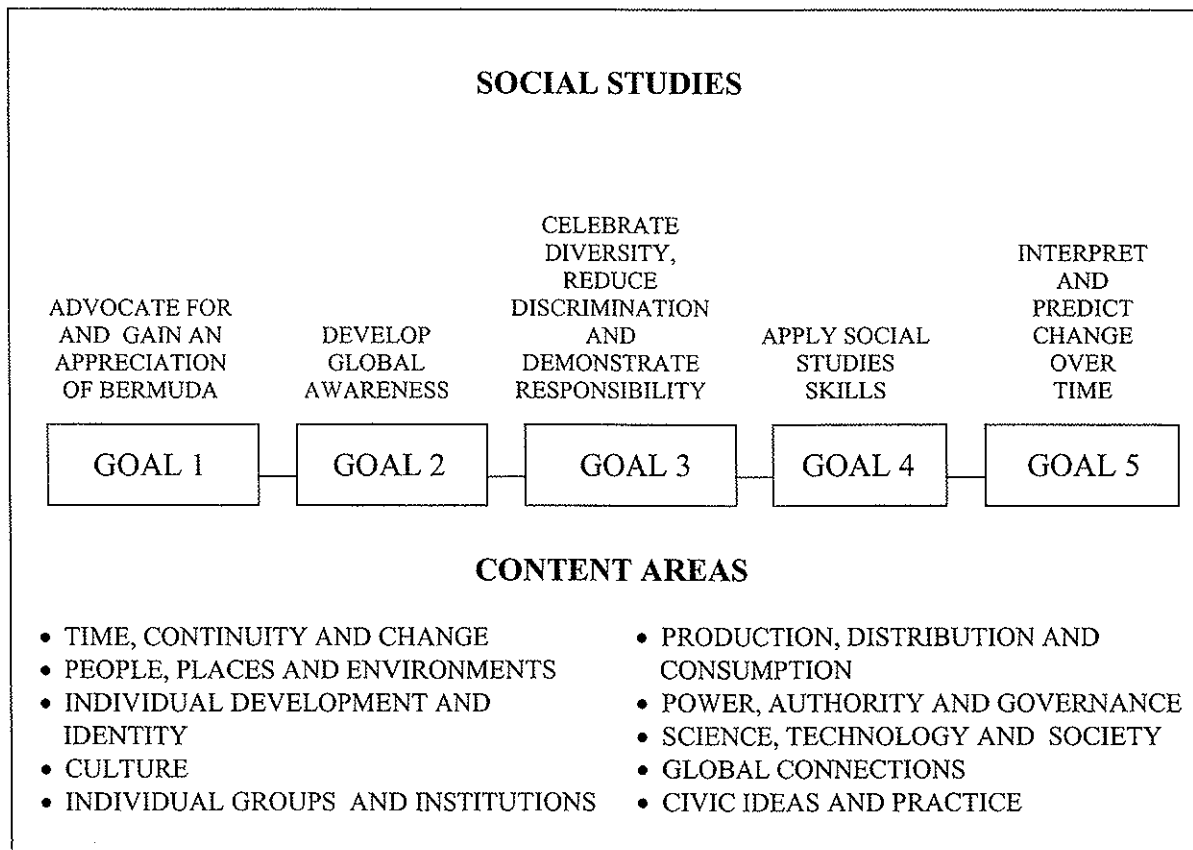


MINISTRY OF EDUCATION

Bermuda
2001

SOCIAL STUDIES PHILOSOPHY

In social studies, content knowledge is used to foster positive attitudes, including a focus on democratic government, the dignity and worth of the individual and the equality of opportunity. The overall mission is to prepare students for productive, responsible citizenship. This is achieved through the integration of knowledge, attitudes and skills from the social sciences into a comprehensive instructional sequence. Particular attention is given to the contributions of all cultures in Bermuda, regardless of gender, race, ethnic or other cultural backgrounds. Specific social studies skills, including map and globe, research, problem solving and interpersonal skills, are introduced and reinforced throughout the curriculum. In Bermuda, it is vital that our students develop a true appreciation for their island home and for the world in which they live.



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The Social Studies pre/primary school curriculum was developed by teachers with the leadership and support of Llewellyn Simmons, Education Officer, Social Studies. This writing team was comprised of diligent and devoted teachers. Appreciation is extended to these teachers for their ability to collaborate amicably and collegially in the production of this professional document. The members of the writing team were:

Joann Adams
Rose Douglas
Cheryl-Ann Griffins
Jeanne Outerbridge
Gail Semos
Suzanne Smith

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**SOCIAL STUDIES
GOALS AND SUBGOALS**

GOAL 1 ADVOCATE FOR AND GAIN AN APPRECIATION OF BERMUDA

STUDENTS WILL ADVOCATE FOR AND GAIN AN APPRECIATION OF BERMUDA.

- Subgoal 1.1** Discriminate among cultures, religions, beliefs, attitudes and lifestyles in Bermuda.
- Subgoal 1.2** Develop a positive self concept.
- Subgoal 1.3** Evaluate the relationship between land formation, climate, vegetation, land use and natural resources in Bermuda.
- Subgoal 1.4** Discriminate among different groups and institutions within Bermuda.
- Subgoal 1.5** Evaluate the economic impact of transportation, production, distribution and consumption within Bermuda.

GOAL 2 DEVELOP GLOBAL AWARENESS

STUDENTS WILL DEVELOP GLOBAL AWARENESS.

- Subgoal 2.1** Discriminate among cultures, religions, beliefs, attitudes and lifestyles in the global context.
- Subgoal 2.2** Evaluate relationships and interactions between countries.
- Subgoal 2.3** Evaluate differing land forms, climates, vegetations and land use.
- Subgoal 2.4** Analyse interactions among environment, economy, natural resources and people.
- Subgoal 2.5** Analyse the organization of different international groups and institutions.
- Subgoal 2.6** Evaluate modes of transportation, production, distribution and consumption.

GOAL 3 **CELEBRATE DIVERSITY, REDUCE DISCRIMINATION AND DEMONSTRATING RESPONSIBILITY**

STUDENTS WILL CELEBRATE DIVERSITY, REDUCE DISCRIMINATION AND DEMONSTRATE RESPONSIBILITY.

- Subgoal 3.1** Appreciate basic human rights and their importance to freedom.
- Subgoal 3.2** Justify the importance of citizens acting responsibly.
- Subgoal 3.3** Accept responsibility for the protection of the environment.
- Subgoal 3.4** Evaluate the contribution of individuals, groups and institutions to the progress of society.

GOAL 4 **APPLY SOCIAL STUDIES SKILLS**

STUDENTS WILL APPLY SOCIAL STUDIES SKILLS.

- Subgoal 4.1** Integrate a variety of skills necessary in acquiring information.
- Subgoal 4.2** Evaluate a variety of methods for organizing, manipulating, creating and utilizing information.
- Subgoal 4.3** Advocate for consistency in positive interpersonal relationships and active social participation.

GOAL 5 **INTERPRET AND PREDICT CHANGE OVER TIME**

STUDENTS WILL INTERPRET AND PREDICT CHANGE OVER TIME.

- Subgoal 5.1** Analyse the growth and development of cultures, religions, beliefs, attitudes and lifestyles.
- Subgoal 5.2** Demonstrate how relationships are managed and changed.
- Subgoal 5.3** Evaluate how and why people adapt to change.
- Subgoal 5.4** Interpret data to make informed suggestions on environmental management.
- Subgoal 5.5** Analyse the effects of processes and systems on people and the environment.

