

Intermediate Program

Intermediate

In Newfoundland and Labrador, students in Grades 7, 8, and 9 are enrolled in the province's intermediate schools. The best and fullest development of young adolescents is the overall goal of intermediate school.

The concepts, values, and skills of the curricula in English language arts, mathematics, science, social studies, music, industrial arts, technology education, art, physical education, French, health, home economics, and religious education are relevant to the interests and needs of eleven- to fifteen-year-olds. The program achieves balance by placing equal emphasis on the cognitive, affective, and psychomotor domains and by taking into consideration the wide range of individual differences in the intermediate school.

In the intermediate grades, students consolidate skills for continued learning (e.g., communication and numeracy skills) and develop competence in decision making, leadership, self reliance and taking responsibility. Problem solving, discussion, group procedures, and strategies that promote independent thinking are the primary approaches to education in the intermediate school. Ongoing assessment and evaluation determine students' remedial and enrichment needs.

Early adolescence is a time of rapid physical growth, of intense desire for autonomy, of questioning, and of searching for values. Young adolescents need someone with whom they can talk over problems and work out solutions. The homeroom, where students spend a substantial amount of time with the same teacher every day, provides stability.

Teachers and parents should have high expectations for young adolescents. They must believe that these students can learn, that they want to learn, and that the intermediate school is instrumental in meeting their learning needs.

Recommended Time Allotments

Subject	% Instructional Time
English Language Arts	20%
Mathematics	18%
Social Studies	10%
Science	10%
French	10%
Religious Education	8%
Technology Education*	
Home Economics	8%
Physical Education	6%
Music and Art	5%
Health	5%

*The Communications Technology Module, the Production Technology Module and the Control Technology Module are to be offered.

Art

Students are afforded increased opportunity to express their ideas and feelings through an emphasis on creating art images and objects. The curriculum focuses on developing an understanding of design in art and the visual environment. Students learn more sophisticated applications of design elements and principles and have opportunities to use this knowledge.

The curriculum enlists the use of slides to provide illustrations of key Newfoundland and Labrador art and design concepts at work. Students examine and analyse these images prior to engaging in art activities which focus on particular concepts.

Students can avail of six modules over three years. The modules are drawing, painting, sculpture, print making, folk art and fibre art.

The curriculum is structured around the following organizers:

- The Artistic Process
 - Visual Communication
 - Cultural Role
 - Personal Growth
 - Perception and Response
- ▶ *Intermediate Art Teaching Guide* (includes 20 slides per module)
 - ▶ *Keys to Drawing*

Authorized Learning Resources

Career Exploration (Grade 9)

At the Grade 9 level, the Guidance Module, Career Exploration, is designed around the three stages of Career Development: self awareness, career exploration and career and educational planning. Students develop an understanding of self in relation to the world of work through the exploration of interests, abilities, aptitudes, needs and values. This self awareness assists students in developing educational plans.

The module is organized around the following components:

- Self-Awareness
 - Career Awareness/Exploration
 - Decision Making
 - Educational Planning
- ▶ Course description
 - ▶ Teacher's resource manual
 - ▶ Student workbook

Authorized Learning Resources

Take Our Kids To Work

Take Our Kids To Work provides an opportunity for grade 9 students to see different roles and responsibilities in the workplace, develop closer dialogue with their parents or another caring adult, enhance understanding of individual jobs, and link the classroom with the workplace.

Authorized Resources

- ▶ Coordinator's guide
- ▶ Teacher's resource
- ▶ Workplace guide
- ▶ Video

Core French

The Intermediate Core French curriculum is defined by outcomes at each grade level: 7, 8, and 9. It is organized to build on student experiences in the elementary French curriculum and to prepare students for the challenges of the senior high program.

The primary purposes of intermediate Core French are development of proficiency in oral language and learning about the Francophone way of life. In skill development, major emphasis is therefore accorded to listening and speaking; reading and writing are also important, serving to complement and reinforce listening and speaking. To ensure students have maximum opportunity to hear and use French, teachers should make it the language of the class, including all aspects of administration and operation, in addition to instruction.

Students practise language in formal learning contexts and use it in functional learning contexts. Teachers should therefore ensure that students have appropriate language practice and content to meet their communication needs.

Authorized Learning Resources

Grades 7, 8, and 9

- ▶ *Intermediate Core French Curriculum Guide* (2006)

Grade 7

- ▶ *Communi-Quête I*
 - Five modules, each with a student text, a student workbook, reproducible masters, language boards, a teacher resource and a CD for the following themes:
 - Mosaïque
 - Entrepreneurs en herbe*
 - Le grand voyage*
 - La guerre au déchets
 - Phénomènes canadiens

* Modules have an accompanying video

Grade 8

- ▶ *Communi-Quête II*
 - Five modules, each with a student text, a student workbook, reproducible masters, language boards, a teacher resource and a CD for the following themes:
 - La Francophonie
 - A l'action!
 - Le monde mystérieux de la science
 - Rétro-Monde
 - Faisons une difference

Grade 9

- ▶ *Communi-Quête III*
 - Five modules, each with a student text, a student workbook, reproducible masters, language boards, a teacher resource and a CD for the following themes:
 - Mission : Survie
 - Studio créateur
 - Et maintenant, passons aux nouvelles
 - Bombs météo

English Language Arts

The English Language Arts curriculum focuses on the **six strands** of language arts: speaking, listening, reading, viewing, writing and representing. The strands are taught in an integrated manner so that the interrelationships between and among the language processes will be understood and applied by the students. This instructional approach should be based on students' prior experience with language and on authentic learning activities in all six strands of language arts. The curriculum provides for a balance of transactional, expressive and poetic writing. The conventions of language are taught in the context of students' own writing and speaking. A variety of resources for reading and viewing are intended to evoke personal responses, promote discussion and analysis of values and ideas, and consolidate their understanding of language, form and genre. Experiences with texts are designed to enhance students'

- Use of knowledge and strategies
- Understanding of metacognition and critical thinking
- Awareness of cultural diversity
- Ability to be creative
- Capacity to respond personally

Authorized Learning Resources**Grade 7**

- ▶ *Foundation for Atlantic Canada English Language Arts Curriculum: K-12* (1999)
- ▶ *Grade 7 English Language Arts Curriculum Guide* (2010)
- ▶ *Literacy 7* (Nelson, 2010)
 - Student and Teacher print resources
 - Student and Teacher digital resources
 - Magazines for independent and guided practice (24-issue set)
 - Media package
 - Selections for modelling and demonstration
- ▶ *Write Traits Kit: Grade 7*
- ▶ Classroom texts to support teacher and student-directed reading and viewing (Teachers and students may wish to consult the *Annotated Bibliography of Young Adult Literature*, 2010 when selecting texts.)

Grade 8

- ▶ *Foundation for Atlantic Canada English Language Arts Curriculum: K-12* (1999)
- ▶ *Grades 8 English Language Arts Curriculum Guide*, (2011)
- ▶ *Literacy 8* (Nelson, 2011)
 - Student and Teacher print resources
 - Student and Teacher digital resources
 - Magazines for independent and guided practice (24-issue set)
 - Media package
 - Selections for modelling and demonstration
- ▶ *Write Traits Kit: Grade 8*
- ▶ Classroom texts to support teacher and student-directed reading and viewing (Teachers and students may wish to consult the *Annotated Bibliography of Young Adult Literature*, 2010 when selecting texts.)

Grade 9

- ▶ *Foundation for Atlantic Canada English Language Arts Curriculum: K-12* (1999)
- ▶ *English Language Arts Curriculum Guide, Grades 7-9* (1999)
- ▶ *SightLines 9* (with Atlantic Canada teacher's guide)
- ▶ *SightLines Audio* CD (one copy per teacher)
- ▶ *ResourceLines 9/10*
- ▶ *Romeo and Juliet* (new Global Shakespeare Series)
- ▶ *Write Traits Kit - Advanced Level I*
- ▶ Classroom texts to support teacher and student-directed reading and viewing (Teachers and students may wish to consult the *Annotated Bibliography of Young Adult Literature*, 2010 when selecting texts.)

Enterprise Education

Authorized Learning Resources

The focus of the Enterprise Education curriculum at the intermediate level is on the development of enterprise and entrepreneurial knowledge, skills, and attitudes. The intent of the resources in this section is to provide teachers with ideas to facilitate the incorporation of entrepreneurial thinking into the existing curriculum.

- ▶ *Connections - Learning Through Entrepreneurship Across the Curriculum: A Teaching Resource, Grades 7-9*

Connections has been developed as a supplementary classroom resource to provide grades 7, 8, and 9 teachers with ideas/suggestions for learning experiences that encourage an enterprising and entrepreneurial spirit. The activities which are presented in this resource provide connections to student outcomes identified in various curriculum areas.

This resource fosters the development of academic, personal management, and teamwork skills in the classroom through a cooperative, collaborative, experiential, and reflective approach to learning. *Connections* engages learners in a variety of cross-curricular activities which provide opportunities for students to develop knowledge, skills, and attitudes both in core curriculum areas and enterprise and entrepreneurship education. *Connections* will provide students with a greater understanding and appreciation of entrepreneurship in the context of their daily lives.

The infusion of enterprise/entrepreneurship education into the curriculum provides teachers and students with exciting and innovative paths to meet the challenges and demands of the 21st century.

Health

At the intermediate level, the Health curriculum takes a comprehensive approach to fostering and promoting the well-being of adolescents by making linkages with classroom instruction, health-related services, and a school environment that promotes and is conducive to healthy living. Comprehensive school health is a form of health promotion which fosters the creation of environments that provide opportunities for all adolescents to make healthy choices and enhance their own health and the health of their communities.

The curriculum is organized around the following components:

- Environmental and Social Well-Being
- Human Sexuality
- Relationships
- Smoking, Alcohol, and Drugs
- Active Living
- Nutrition
- Environmental Health and Safety

Authorized Learning Resources

Grade 7

- ▶ *Adolescence: Healthy Lifestyles* (a health and personal development curriculum guide)
- ▶ *Healthwise 1* (student book)
- ▶ *Healthwise 1* (teacher's resource book)

The following videos are available from district offices and from the Provincial Information and Library Resources Board:

- ▶ *AIDS: The New Facts of Life* (with teacher's guide)
- ▶ *Alcohol* (Degrassi Talks Series)
- ▶ *Between You and Me: Learning to Communicate* (Self-Esteem Series)
- ▶ *Diary of a Teenage Smoker*
- ▶ *Fitness and Sport*

- ▶ *Friendship: the Good Times, the Bad Times* (Self-Esteem Series)
- ▶ *I Like Being Me* (Self-Esteem Series)
- ▶ *Sexuality* (Degrassi Talks Series)
- ▶ *Smart Talk*
- ▶ *The New Improved Me: Understanding Body Changes*
- ▶ *Yes? No? Maybe? Decision-Making Skills* (Self-Esteem Series)
- ▶ *Your Choice, Our Chance* (HWC Drug Prevention Series with teacher's guide)

Grade 8

- ▶ *Adolescence: Healthy Lifestyles (A Health and Personal Development Curriculum Guide)*
- ▶ *Healthwise 2* (student book)
- ▶ *Healthwise 2* (teachers' resource book)

The following videos are available from district offices and from the Provincial Information and Library Resources Board:

- ▶ *Alcohol* (Degrassi Talks Series)
- ▶ *Abuse* (Degrassi Talks Series)
- ▶ *Choosing to Wait: Sex and Teenagers*
- ▶ *Date Rape: It Happened to Me*
- ▶ *David's Story: A Teen Suicide*
- ▶ *Depression* (Degrassi Talks Series)
- ▶ *Drugs* (Degrassi Talks Series)
- ▶ *Nutrition and Exercise in the 90s*
- ▶ *Sexual Responsibility: A Two-Way Street*
- ▶ *Teen Contraception*
- ▶ *The Circle* (Working it out at Madison Series) - for aboriginal schools only
- ▶ *Thinking Positive*
- ▶ *Young Hearts: What You Must Know About Cholesterol*

Grade 9

- ▶ *Grade Nine Health Curriculum Guide* (Interim Edition, 2008) Note: the previous grade nine guide included in the *Adolescence: Healthy Lifestyles* should not be used.
- ▶ *Human Sexuality*, First Canadian Edition, student and teacher text
- ▶ *Human Sexuality*, First Canadian Edition, teacher resource
- ▶ *Understanding Sexually Transmitted Infections*, flip chart
- ▶ *Choosing a contraceptive that's right for u*, flip chart

Home Economics

At the intermediate level, the Home Economics curriculum focuses on the development of skills for the effective use of personal and family resources; a positive self-concept; an understanding of self in relation to others; an awareness of the benefits of being a part of a family and the responsibilities associated with being a family member.

The curriculum is comprised of six modules which represent the major subject areas and the underlying concepts of home economics.

Authorized Learning Resources

- ▶ *Home Economics Program* (teacher's resource)
- ▶ *Creative Living* (class set) (previously supplied, out of print)
- ▶ *Creative Living Teacher's Resource Package*
- ▶ *Creative Living* (teacher's edition) (previously supplied, out of print)

Mathematics

At the intermediate level, the mathematics curriculum helps students mature mentally in the context of meaningful learning experiences that promote active exploration of a variety of mathematical ideas designed to promote enjoyment and curiosity about mathematics. The curriculum helps students develop the mathematical literacy essential to productive citizenship in a scientific and technological society.

Mathematical activities should provide students with opportunities to:

- communicate to learn and express their understanding
- connect mathematical ideas to other concepts in mathematics, to everyday experiences and to other disciplines
- demonstrate fluency with mental mathematics and estimation
- develop and apply new mathematical knowledge through problem solving
- develop mathematical reasoning
- develop visualization skills to assist in processing information, making connections and solving problems
- select and use technologies as tools for learning and solving problems

Intermediate mathematics is organized into four strands:

- number
- patterns and relations
- shape and space
- statistics and probability

Authorized Learning Resources**Grade 7**

- ▶ *Grade 7 Mathematics Curriculum Guide* (2008)
- ▶ *Math Makes Sense 7*
 - Student Edition (with CD-ROM)
 - ProGuide™ (with CD-ROM and DVD)
 - Practice and Homework Book (Reproducible)
 - Practice and Homework Book (Teacher's Edition)

Supplementary Resources (One-time distribution 2011):

- ▶ Manipulative Kit including:
 - base ten materials including 200 units, 50 rods, 20 flats, and 2 decimetre cubes
 - overhead base ten materials including 20 units, 10 rods, 1 flat
 - overhead fraction circles – 5 sets
 - overhead Cuisenaire rods
 - wooden pattern blocks (250)
 - overhead pattern blocks
 - two-coloured counters (200)
 - overhead two-colored counters
 - standard 6 sided dice (24)
 - decahedra dice (12)

Grade 8

- ▶ *Grade 8 Mathematics Curriculum Guide* (2009)
- ▶ *Math Makes Sense 8*
 - Student Edition
 - ProGuide™ (with CD-ROM and DVD)
 - Practice and Homework Book (Reproducible)
 - Practice and Homework Book (Teacher's Edition)

Supplementary Resources (One-time distribution 2009):

- ▶ Manipulative Kit including
 - overhead fraction circles
 - wooden pattern blocks
 - two-coloured counters
 - overhead two-coloured counters
 - standard dice
 - spinners
- ▶ *What's Your Angle Pythagoras? A Math Adventure* by Julie Ellis

Grade 9

- ▶ *Grade 9 Intermediate Mathematics Curriculum Guide* (2010)
- ▶ *Math Makes Sense 9*
 - Student Edition
 - ProGuide (with CD-Rom and DVD)
 - Preparation and Practice Book (Reproducible)
 - Preparation and Practice Book (Teacher's Edition)

Supplementary Resources (One-time distribution 2010):

- ▶ Manipulative Kit including
 - 4-colour Algebra pieces with working/storage tray (1 set)
 - reflect view (20)
 - hex-a-link 2 cm cubes (1 set)
 - overhead folding geometric shapes
 - folding geometric solids

Music

The Intermediate Music curriculum further develops musical literacy and aesthetic awareness by providing meaningful and challenging musical experiences. Concepts learned in K-6 are reviewed, reinforced, and consolidated while new skills and knowledge are applied to a number of musical forms. Emphasis is placed on direct experiences with music and the integration of musical elements. A student's understanding of basic concepts is enhanced through more advanced activities.

The Intermediate years are viewed as offering the opportunity to provide enrichment to the music program, through an application of skills and knowledge. It is designed to be delivered through a variety of settings, e.g., classroom, choral, instrumental. At the centre of all three settings are core outcomes. These outcomes will be addressed in any one or combination of the three settings - classroom, choral, instrumental. While the core outcomes provide the foundation on which each of the three settings is built, they are also expanded upon via medium-specific outcomes that relate to setting choice.

A variety of teaching and learning strategies and modes of evaluation and assessment will be used toward students' achievement of curriculum outcomes for each grade level. This flexible approach to curriculum implementation will provide opportunities for varied school configurations to meet the expectations of the prescribed curriculum in adaptive and creative ways.

Authorized Learning Resources

- ▶ *Intermediate Music Curriculum Guide* (2009)
- ▶ Apro Music - Level 1
- ▶ Apro Music - Level 2
- ▶ Apro Music - Level 3
- ▶ Making Music 7 - Student Text
- ▶ Making Music 7 - Teacher's Resource Package
- ▶ Making Music 7 - Audio CD
- ▶ Making Music 8 - Student Text
- ▶ Making Music 8 - Teacher's Resource Package
- ▶ Making Music 8 - Audio CD
- ▶ NL Folklore - A sampler of Songs (CD and BK)
- ▶ The Body Rondo

Tutor Books

For information on ordering and reimbursement of tutor books contact the Program Development Specialist for Music at the Department of Education.

Physical Education

The Intermediate Physical Education curriculum recognizes that students at the intermediate level are in great need of activities (Psychomotor, Cognitive and Affective) which explore and help create a stable identity.

The curriculum provides an understanding of the benefits of an active lifestyle and leads individuals to develop their personal wellness , personal movement competency and physical literacy that contribute to an active lifestyle throughout life. Process skills are emphasized and students develop movement strategies to react to various situations, solve problems and make decisions.

Key Features

- ▶ The Curriculum extends the range of skills and knowledge acquired in the primary and elementary programs and facilitates transition to the more self-directed activities of high school. It builds upon the movement concept knowledge provided in the primary and elementary programs and provides opportunity for personal achievement through group and individual activities.
- ▶ The curriculum is based on personal wellness through *Active Living* and provides students with the opportunity to develop and understand personal movement skills and to continue with an active lifestyle throughout life.
- ▶ Assists student in developing critical thinking abilities and applying those to solving movement and societal problems which affect opportunities to continue an active lifestyle.

- ▶ A broad range of movement activities are employed in six movement themes. Each theme provides opportunities for students to participate in movement activities, experiment with movement techniques, develop games, rules and strategies, help others and plan demonstrations or activities for the benefit of others.
- ▶ Taken as a whole and developed on a continuum throughout the school system, the outcomes of the physical education program encourages learners to develop physically, cognitively, socially, emotionally and spiritually, in, about, and through movement (**Adjusting the Focus: A curriculum Framework for Physical Education, 1996**)

Authorized Learning Resources

- ▶ *A Curriculum Framework For Physical Education: Adjusting The Focus* (1996)
- ▶ *Intermediate Physical Education Curriculum Guide* (2010)

Supplementary Learning Resources

- ▶ *Multicultural Folk Dance Treasure Chest, Volumes 1 & 2*
- ▶ *Teaching the Basics Manuals* (set of 14 books)
- ▶ *Ready to Use P.E. Activities for Grades 7 - 9*
- ▶ *Teaching Responsibility Through Physical Education*
- ▶ *Team Building Through Physical Challenges*
- ▶ *Canadian Active Living Fitness Circuit Charts: Secondary School Series -* Thompson Educational Publishing
- ▶ *Rhythmic Activities and Dance*

Religious Education

The Intermediate Religious Education curriculum takes a non-congressional approach. Various religions are included in this program and beliefs, doctrines, practices and history of each are covered with sensitivity and respect. The curriculum creates a context for students to recognize the diversity of religion and how it has influenced and continues to influence individuals and society. It enables and encourages students to grow spiritually and morally into informed, caring and contributing members of society. Students develop an appreciation for their own beliefs and values, and the beliefs and values of others. They acquire an understanding of the contribution that religions make to human life.

Authorized Learning Resources

Grades 7, 8, and 9

- ▶ *Framework Document for Religious Education* (2002)
- ▶ *Intermediate Religious Education Curriculum Guide* (2002)

Grade 7

- ▶ *Expressions of Faith* (with teacher's guide)

Grade 8

- ▶ *Who Am I?* (with teacher's edition)
- ▶ *Who Am I?* (dramatized audio CD)

Grade 9

- ▶ *My Place in the World* (with teacher's edition)

Science

The Intermediate Science curriculum involves a study of selected topics from each of the Life, Earth/Space, and Physical Sciences (Chemistry/Physics). The Intermediate Science curriculum for Grades 7, 8, and 9 is based on the Pan Canadian Science Protocol and reflects the work done in partnership with the other Atlantic Provinces. The study of the selected topics is organized around the four General Curriculum Outcomes for science: Skills, Knowledge, Science, Technology, Society, and Environment (STSE), and Attitudes. This curriculum helps students to become more scientifically literate and to develop their inquiry, problem-solving, and decision-making abilities; to become life-long learners; and to maintain a sense of wonder about the world around them.

Authorized Learning Resources

Grade 7

- ▶ *Discovering Science 7* (2008)
 - Student Text
 - Teacher Resource binder
 - Instructors' CD-ROM containing:
 - Computerized Assessment Bank
 - Black Line Masters
 - Teacher Resource binder (electronic format)
- ▶ *Foundations for the Atlantic Canada Science Curriculum* (1998)
- ▶ *Grade 7 Science Curriculum Guide* (2010)
- ▶ *Laboratory Safety Guidelines*

Grade 8

- ▶ *Discovering Science 8* (2009)
 - Student Text
 - Teacher Resource binder
 - Instructors' CD-ROM containing:
 - Computerized Assessment Bank
 - Black Line Masters
 - Teacher Resource binder (electronic format)
- ▶ *Foundations for the Atlantic Canada Science Curriculum* (1998)
- ▶ *Grade 8 Science Curriculum Guide* (2010)
- ▶ *Laboratory Safety Guidelines*

Grade 9

- ▶ *Discovering Science 9* (2009)
 - Student Text
 - Teacher Resource binder
 - Instructors' CD-ROM containing:
 - Computerized Assessment Bank
 - Black Line Masters
 - Teacher Resource binder (electronic format)
- ▶ *Grade 9 Science Curriculum Guide* (Interim Edition, 2010)
- ▶ *Foundations for the Atlantic Canada Science Curriculum* (1998)
- ▶ *Laboratory Safety Guidelines*

Social Studies

The Social Studies curriculum for the intermediate grades is designed around conceptual organizers. The organizing concept for the Grade 7 curriculum is “*empowerment*”. The curriculum examines various aspects of empowerment - including personal, political, cultural, social and national. It draws largely on the history of the Canadian nation from the early 1800s to the end of World War I. Reference is made to earlier periods as well as the contemporary.

The organizing concept for the Grade 8 curriculum is “*history as a story of the past in the present*”. The curriculum examines various themes related to the history of Newfoundland and Labrador history as a lens to the past, history as a story of people, history as a story of events, and history as a story of change. The course introduces students to the study of the history of the province from the turn of the 19th century to the present. It traces the province’s political evolution and development, colony-to-country-to-province, and asks students to: explore and appreciate history as part of their community, region and province; examine social change; and assess the impact of the past on the present.

The organizing concept for Social Studies 9 is “*Canadian Identity*”. Students explore this concept within the context of post-World War I Canada. Social Studies 9 builds on the skills and concepts of previous years and continues the chronology of Social Studies 7, wherein students examined Canada’s history from the early 1800s through World War I. Social Studies 9 also continues and complements studies of Canada begun in even earlier grades. It is firmly grounded in the social studies disciplines of geography, history, economics, sociology, and political science. In addition, it contains many cross-curricular opportunities, particularly in language arts, fine arts, music, and science, and contains myriad opportunities for the integration of technology.

Authorized Learning Resources

Grades 7, 8, and 9

- ▶ *Foundation for the Atlantic Canada Social Studies Curriculum* (1998)

Grade 7

- ▶ *Atlantic Canada Social Studies Curriculum Guide Grade 7* (2004)
- ▶ *Changing Your World: Investigating Empowerment* (2004, with teachers’ guide)

Grade 8

- ▶ *Newfoundland and Labrador History: A Curriculum Guide* (2005)
- ▶ *Voyage to Discovery: History of Newfoundland and Labrador 1800-Present* (2005, with teacher’s resource)
- ▶ *The Log of Bob Bartlett* (2006)

Grade 9

- ▶ *Grade 9 Social Studies: A Curriculum Guide* (2011)
- ▶ *Canadian Identity* (2011, with Teacher’s Resource)

Technology Education

The Technology Education curriculum is based on the *Foundation for the Atlantic Canada Technology Education Curriculum* document. Five general curriculum outcomes define the intent of the program: technological problem solving, technological systems, history and evolution of technology, technology and careers, and technological responsibility.

At the intermediate level the technology education curriculum consists of four technology modules. They are:

- Intermediate Communications Technology Module
- Intermediate Production Technology Module
- Intermediate Control Technology Modules
- Intermediate Energy and Power Module

Each module is designed to be completed in a minimum of 26 hours of class time as a stand-alone module and requires students to construct physical/digital objects by implementing a design and problem-solving methodology. There are many opportunities to connect to other subject areas within each module at various stages of the design and problem-solving process.

Communications Technology Module

The Intermediate Communications Technology Module introduces students to the technology education curriculum at the intermediate level. Topics of study include: communications tools, processes, and graphic design.

Authorized Learning Resources

The learning resources listed in this section will be utilized in the delivery of all four modules and are authorized for Grades 7, 8 and 9. Schools delivering the Communications, Production, Control and Energy and Power Technology Modules are eligible for the resources.

Foundation Document and Curriculum Guide

- ▶ *Foundation for the Atlantic Canada Technology Education Curriculum*
- ▶ *Communications Technology Module Curriculum Guide* (June 2002)

Student Reference Text (Class Set - 15 copies per school)

- ▶ *Technology Interactions* (student edition)

Teacher Reference Text (one copy per school)

- ▶ *Design and Problem Solving in Technology* (student edition)
- ▶ *Technology Interactions* (teacher's resource guide)

Production Technology Module

Authorized Learning Resources

The Intermediate Production Technology Module builds upon the design and problem-solving knowledge and skills delivered in the Communications Technology Module and focuses on topics related directly to production technology. Topics of study include: production technology materials, processes, safety, and careers.

In addition to the resources authorized for the Intermediate Communications Technology Module, the following learning resources are authorized for the implementation of the Production Technology Module:

Teacher Reference Text (1 copy per school)

- ▶ *Instructor's Guide to Accompany Design and Problem Solving in Technology*
- ▶ *Design and Technology*

Control Technology Module

Authorized Learning Resources

The Intermediate Control Technology Module builds upon the design and problem-solving knowledge and skills delivered in the Communications Technology Module and the Production Technology Module and focuses on topics related directly to control technology. Topics of study include: control, systems, modules, safety, and careers.

- ▶ *Design and Problem Solving in Technology* - instructor's guide
- ▶ *Design and Technology* - teacher's resource
- ▶ *Virtual Labs - Electricity/Light Units* - 2 CDs and teacher's guide
- ▶ Phidgets Kit (maximum 6 per school)
- ▶ Bull Dozer Kit
- ▶ Hydraulics Kit (maximum 6 per school)
- ▶ *Pump it up with Pneumatics* - teacher's resource (1 per hydraulic kit)

Energy and Power Module

This 26 hour module builds on the design and problem-solving knowledge and skills developed in the Communications Technology Module, Production Technology Module and Control Technology Module. In this module students will explore topics such as: the production, conversion and transmission of energy; consequences of energy consumption on society, new technologies for energy conservation; and the measurement of energy transmission. In addition, students will get a practical introduction to principles of physics related to work energy and power. Students will work in design teams to complete hands-on projects using the problem solving process. These projects will have them solve authentic problems in the generation and conservation of energy through alternative means. This module is scheduled for implementation in September 2009. Its structure will be consistent with the three modules already implemented in the intermediate program.

Authorized Learning Resources

- ▶ *Energy and Power: An Intermediate Curriculum Module*
- ▶ Energy and Power Parts Kit
- ▶ Solar Engine Kit
- ▶ Solar Battery
- ▶ Hobby type continuous drive servo motor
- ▶ Equal Arm/Pan Balance
- ▶ Soldering iron with replaceable tip
- ▶ USB digital oscilloscope
- ▶ Spring Scales
- ▶ 500W Portable Halogen Work Floodlight
- ▶ All print resources have already been resourced with other implemented intermediate Technology Education modules.