



**SOUTH SHORE REGIONAL SCHOOL BOARD  
CURRICULUM UPDATES AND CONTACT INFORMATION  
Last updated: October 15<sup>th</sup>, 2012**

***SCIENCE***

**Get involved in our SSRSB Regional Science Fair held for grades 6-12 on March 21-23, 2013 at the NSCC. Check out the BrainWaves Science Fair website at:**  
<http://ssrsbstaff.ednet.ns.ca/sciencefair/index.html>\*

**Contacts**

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If teachers have not yet downloaded the curriculum documents, they can be found (not all) in various stages (final, draft, conceptual, ..) on the protected website: <http://www.educators.ednet.ns.ca> along with other core resources for particular subjects as well as Learning Outcomes Frameworks for P-6, 7-9 and 10-12 (lists all the GCO's and SCO's for each subject/course from P-12)

- Go to <http://www.educators.ednet.ns.ca/>
- Use your staff EDnet ID and password that you use at school
- Click on Science

The DoE are looking to house all the curriculum guides/documents in a central place in the near future-stay tuned as not all curriculum guides are on the fore-mentioned educator's site (i.e. Health P-9). This is called the Edu-Portal. Check this central place out at <http://edapps.ednet.ns.ca/eduportal> . You will need your Employee Number as found on your payroll information.

There may be old and new draft outcomes both on PowerSchool for subjects like Health P-9, Social Studies 5, etc. It is up to staff and principals to decide where they are in the implementation stage (usually a 3-year implementation for new curriculums). We encourage teachers to use the newer outcomes whenever possible, especially if there are support resources available (i.e. Health P-9).

**Exciting News:** The Department of Education has signed a memorandum of understanding with the Canadian Space Agency (Feb 2011) that will support the development of curriculum resources and space technology learning products for teachers and students!

The Atlantic Science Links Association runs a variety of programs to support grades primary to 12 science curricula in Nova Scotia. These include Scientists and Innovators in the Schools, Ask-A-Scientist, and the Climate Change Action Pack. The programs are completely free and run all year long! For example, The Climate Change Action Pack (CCAP) is a collection of lesson plans for grades 4-6 teachers on the underlying concepts of climate change, specifically in Nova Scotia, and is based on the Atlantic Science Curriculum. They have both English and French versions of CCAP in CDs to be distributed to science teachers in Nova Scotia. For more information about these programs, or to request a visit by a scientist, please contact them by email at [sits@dal.ca](mailto:sits@dal.ca) or by phone at 902-494-2831 (toll free 1-800-565-7487). Their website is also a great source of information, and has links to other resources and activities.  
<http://atlanticsciencelinks.dal.ca>

## Science Olympics

The Department of Education is pleased to support the Nova Scotia Invitational Science Olympics on November 3, 2012. This invitational event provides proportional representation by school board, all boards are invited to send teams. The Science Olympics will be held at Saint Mary's University in Halifax, registration begins at 8:45a.m., the day ends at 3:00 p.m. Space is available for 32 teams from across the province. Each team should consist of two girls and two boys. Students must be in grade 4 or 5, and will participate in activities that address curriculum outcomes as well as in recreational activities. One chaperone of the school's choosing is also required.

Interested schools should contact Aja Lefave at [lefaveal@gov.ns.ca](mailto:lefaveal@gov.ns.ca) to register and for further information. The deadline for registration is October 15, 2012 at noon.

**Select a grade and/or category for more information**

[Primary](#)

[Grade 1](#)

[Grade 2](#)

[Grade 3](#)

[Grade 4](#)

[Grade 5](#)

[Grade 6](#)

[Grade 7](#)

[Grade 8](#)

[Grade 9](#)

[Grade 10](#)

[Science 10](#)

[Grade 11](#)

[Agriculture / Agrifood 11](#)

[Advanced Biology 11](#)

[Biology 11](#)

[Advanced Chemistry 11](#)

[Chemistry 11](#)

[Forestry Management 11](#)

[Human Biology 11](#)

[Oceans 11](#)

[Advanced Physics 11](#)

[Physics 11](#)

[Grade 12](#)

[Advanced Biology 12](#)

[Biology 12](#)

[Advanced Chemistry 12](#)

[Chemistry 12](#)

[Food Science 12](#)

[Geology 12](#)

[Advanced Physics 12](#)

[Physics 12](#)

## Primary

### Provincial Guide

- Atlantic Canada Science Curriculum: Science, Grade Primary (2004)-contains activities linked to SCO's, materials required, suggested assessments, etc
- The Time to Learn Strategy recommends a minimum of 18 minutes per day for grades P-2, and a minimum of 22 minutes per day for grades 3-6

### Core Resources

- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Energy Around Us: Education for Sustainable Development and the 21<sup>st</sup> Century-check out the website at <http://gov.ns.ca/energy/renewables/energyaroundus/>
- One teacher from each elementary school attended a Science workshop on February 4<sup>th</sup>, 2011. Participants explored science concepts with connections to literacy, mathematics, visual arts, movement and social studies. Assessment and technology were embedded in the workshop. Each participant/school received an excellent selection of learning resources that are designed to promote hands-on, minds-on learning, including: P-6 Science collection of books (15 titles), science equipment (lab coats, science bag, goggles, aprons,..), measuring tools, science videos/CD's (Hands-On, Minds-on-Science, Doing and Thinking Science: Olympic Free-Style, First Canadian Expedition Downlink Event), Sciencesaurus book and other print resources/guides (outcome cards). In addition, each school with a Primary class received one Table Top Tri-Pod magnifier and a Stereo Microscope. All the activities discussed at this workshop will be on a Moodle site for September 2011.
- A Handbook for Teaching Combined Classes: Science Primary / Science 1 (Draft Oct 2012)
- Science Links: Primary-2 Combined (Draft, May 2012)

## Grade One

### Provincial Guide

- Atlantic Canada Science Curriculum: Science, Grade 1 (2005) -contains activities linked to SCO's, materials required, suggested assessments, etc
- The Time to Learn Strategy recommends a minimum of 18 minutes per day for grades P-2, and a minimum of 22 minutes per day for grades 3-6

### Core Resources

- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.

- Energy Around Us: Education for Sustainable Development and the 21<sup>st</sup> Century-check out the website at <http://gov.ns.ca/energy/renewables/energyaroundus/>
- One teacher from each elementary school attended a Science workshop on February 4<sup>th</sup>, 2011. Participants explored science concepts with connections to literacy, mathematics, visual arts, movement and social studies. Assessment and technology were embedded in the workshop. Each participant/school received an excellent selection of learning resources that are designed to promote hands-on, minds-on learning, including: P-6 Science collection of books (15 titles), science equipment (lab coats, science bag, goggles, aprons,..), measuring tools, science videos/CD's (Hands-On, Minds-on-Science, Doing and Thinking Science: Olympic Free-Style, First Canadian Expedition Downlink Event), Sciencesaurus book and other print resources/guides (outcome cards). In addition, each school with a Grade 1 class received one Floaters & Sinkers Kit and a Stereo Microscope. All the activities discussed at this workshop will be on a Moodle site for September 2011.
- A Handbook for Teaching Combined Classes: Science Primary / Science 1 (Draft Oct 2012)
- A Handbook for Teaching Combined Classes: Science 1 / Science 2 (Draft Oct 2012)
- Science Links: Primary-2 Combined (Draft, May 2012)

## Grade Two

### Provincial Guide

- Atlantic Canada Science Curriculum: Science, Grade 2 (2005)-contains activities linked to SCO's, materials required, suggested assessments, etc
- The Time to Learn Strategy recommends a minimum of 18 minutes per day for grades P-2, and a minimum of 22 minutes per day for grades 3-6

### Core Resources

- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- A Closer Look: Energy and Me, Science 2 and Science 3, A Curriculum Supplement (2009)
- Energy Around Us: Education for Sustainable Development and the 21<sup>st</sup> Century-check out the website at <http://gov.ns.ca/energy/renewables/energyaroundus/>
- One teacher from each elementary school attended a Science workshop on February 4<sup>th</sup>, 2011. Participants explored science concepts with connections to literacy, mathematics, visual arts, movement and social studies. Assessment and technology were embedded in the workshop. Each participant/school received an excellent selection of learning resources that are designed to promote hands-on, minds-on learning, including: P-6 Science collection of

books (15 titles), science equipment (lab coats, science bag, goggles, aprons,..), measuring tools, science videos/CD's (Hands-On, Minds-on-Science, Doing and Thinking Science: Olympic Free-Style, First Canadian Expedition Downlink Event), Sciencesaurus book and other print resources/guides (outcome cards). In addition, each school with a Grade 2 class received one Early Simple Machines Set (Lego) and a Stereo Microscope. All the activities discussed at this workshop will be on a Moodle site for September 2011.

- A Handbook for Teaching Combined Classes: Science 1 / Science 2 (Draft Oct 2012)
- A Handbook for Teaching Combined Classes: Science 2 / Science 3 (Draft Oct 2012)
- Science Links: Primary-2 Combined (Draft, May 2012)

## Grade Three

### Provincial Guide

- Atlantic Canada Science Curriculum: Science, Grade 3 (2005)-contains activities linked to SCO's, materials required, suggested assessments, etc
- The Time to Learn Strategy recommends a minimum of 18 minutes per day for grades P-2, and a minimum of 22 minutes per day for grades 3-6

### Core Resources

- A Closer Look: Using Microscopes. Science Grades 3-6: A Curriculum Supplement (2003)
- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- A Closer Look: Energy and Me, Science 2 and Science 3, A Curriculum Supplement (2009)
- A Closer Look: Let's Explore Plants and Soils, Science 3, A Curriculum Resource (2010)
- Booklet called "What on Earth? A Resource for Plants and Soils"
- Energy Around Us: Education for Sustainable Development and the 21<sup>st</sup> Century-check out the website at <http://gov.ns.ca/energy/renewables/energyaroundus/>
- One teacher from each elementary school attended a Science workshop on February 4<sup>th</sup>, 2011. Participants explored science concepts with connections to literacy, mathematics, visual arts, movement and social studies. Assessment and technology were embedded in the workshop. Each participant/school received an excellent selection of learning resources that are designed to promote hands-on, minds-on learning, including: P-6 Science collection of books (15 titles), science equipment (lab coats, science bag, goggles, aprons,..), measuring tools, science videos/CD's (Hands-On, Minds-on-Science, Doing and Thinking Science: Olympic Free-Style, First Canadian Expedition Downlink Event), Sciencesaurus book and other print

resources/guides (outcome cards). In addition, each school with a Grade 3 class received one Magnetism Kit and a Stereo Microscope. All the activities discussed at this workshop will be on a Moodle site for September 2011.

- Tomatosphere, a curriculum-based program for schools, involves students in a germination experiment with sets of tomato seeds – a control group and a group that has been exposed to some aspect of the space environment. You receive 40 +/- 5 of the two groups FOR EACH CLASS ENROLLED. Sign up now at [www.tomatosphere.org](http://www.tomatosphere.org) involves grades 3-10. The detailed info was sent to schools (July 2012).
- A Handbook for Teaching Combined Classes: Science 3 / Science 4 (Draft Oct 2012)

## Grade Four

### Provincial Guide

- Atlantic Canada Science Curriculum: Science, Grade 4 (2006)-contains activities linked to SCO's, materials required, suggested assessments, etc
- The Time to Learn Strategy recommends a minimum of 18 minutes per day for grades P-2, and a minimum of 22 minutes per day for grades 3-6

### Core Resources

- A Closer Look: Using Microscopes. Science Grades 3-6: A Curriculum Supplement (2003)
- A Handbook for Teaching Combined Classes: Science 3 / Science 4 (Draft Oct 2012)
- Science 4 / Science 5: A Handbook for Teaching Combined Classes (2011)
- The video, Doing and Thinking Science: Olympic Freestyle is available for download at [http://www.ednet.ns.ca/science\\_olympics\\_video.shtml](http://www.ednet.ns.ca/science_olympics_video.shtml) and the Science Olympics Booklet: Science 4 and Science 5: A Teaching Resource is also available for download at <https://sapps.ednet.ns.ca/Cart/description.php?II=301&UID=20031024095517142.227.51.61>
- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Energy Around Us: Education for Sustainable Development and the 21<sup>st</sup> Century-check out the website at <http://gov.ns.ca/energy/renewables/energyaroundus/>
- One teacher from each elementary school attended a Science workshop on February 4<sup>th</sup>, 2011. Participants explored science concepts with connections to literacy, mathematics, visual arts, movement and social studies. Assessment and technology were embedded in the workshop. Each participant/school received an excellent selection of learning resources that are designed to promote hands-on, minds-on learning, including: P-6 Science collection of books (15 titles), science equipment (lab coats, science bag, goggles,

aprons,..), measuring tools, science videos/CD's (Hands-On, Minds-on-Science, Doing and Thinking Science: Olympic Free-Style, First Canadian Expedition Downlink Event), Sciencosaur book and other print resources/guides (outcome cards). In addition, each school with a Grade 4 class received one Light Kit and a Stereo Microscope. All the activities discussed at this workshop will be on a Moodle site for September 2011.

- A "Rocks Kit" was sent out to all schools with a grade 4 component in March 2012. Can be shared with the Grade 7 Science teachers also.
- Tomatosphere, a curriculum-based program for schools, involves students in a germination experiment with sets of tomato seeds – a control group and a group that has been exposed to some aspect of the space environment. You receive 40 +/- 5 of the two groups FOR EACH CLASS ENROLLED. Sign up now at [www.tomatosphere.org](http://www.tomatosphere.org) involves grades 3-10. The detailed info was sent to schools (July 2012).

## Grade Five

### Provincial Guide

- Atlantic Canada Science Curriculum: Science, Grade 5 (2008)-contains activities linked to SCO's, materials required, suggested assessments, etc
- The Time to Learn Strategy recommends a minimum of 18 minutes per day for grades P-2, and a minimum of 22 minutes per day for grades 3-6

### Core Resources

- A Closer Look: Using Microscopes. Science Grades 3-6: A Curriculum Supplement (2003)
- Science 4 / Science 5: A Handbook for Teaching Combined Classes (2011)
- The video, Doing and Thinking Science: Olympic Freestyle is available for download at [http://www.ednet.ns.ca/science\\_olympics\\_video.shtml](http://www.ednet.ns.ca/science_olympics_video.shtml) and the Science Olympics Booklet: Science 4 and Science 5: A Teaching Resource is also available for download at <https://sapps.ednet.ns.ca/Cart/description.php?II=301&UID=20031024095517142.227.51.61>
- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Energy Around Us: Education for Sustainable Development and the 21<sup>st</sup> Century-check out the website at <http://gov.ns.ca/energy/renewables/energyaroundus/>
- One teacher from each elementary school attended a Science workshop on February 4<sup>th</sup>, 2011. Participants explored science concepts with connections to literacy, mathematics, visual arts, movement and social studies. Assessment and technology were embedded in the workshop. Each participant/school received an excellent selection of learning resources that are designed to promote hands-on, minds-on learning, including: P-6 Science collection of books (15 titles), science equipment (lab coats, science bag, goggles,

aprons,..), measuring tools, science videos/CD's (Hands-On, Minds-on-Science, Doing and Thinking Science: Olympic Free-Style, First Canadian Expedition Downlink Event), Sciencosaur book and other print resources/guides (outcome cards). In addition, each school with a Grade 5 class received one Forces and Simple Machines Kit and a Stereo Microscope. All the activities discussed at this workshop will be on a Moodle site for September 2011.

- Combining Science 5 and Health Education 5: Curriculum Supplement (2010). This curriculum supplement includes sample year-long plans for combining Science 5 Life Science: Meeting Basic Needs and Maintaining a Healthy Body unit with the Health Education 5 My Body, My Self: Body Function, Growth and Care unit.
- Check out the “You Be the Chemist” program for grades 5-8 through the use of the website [www.youbethechemist.ca](http://www.youbethechemist.ca) . This educational tool is designed to engage students in the science of chemistry. 32 educator-reviewed and simply structured lesson plans with detailed activity sheets for class assessments.
- Tomatosphere, a curriculum-based program for schools, involves students in a germination experiment with sets of tomato seeds – a control group and a group that has been exposed to some aspect of the space environment. You receive 40 +/- 5 of the two groups FOR EACH CLASS ENROLLED. Sign up now at [www.tomatosphere.org](http://www.tomatosphere.org) involves grades 3-10. The detailed info was sent to schools (July 2012).

## Grade Six

### Provincial Guide

- Atlantic Canada Science Curriculum: Science, Grade 6 (2008)-contains activities linked to SCO's, materials required, suggested assessments, etc
- The Time to Learn Strategy recommends a minimum of 18 minutes per day for grades P-2, and a minimum of 22 minutes per day for grades 3-6

### Core Resources

- **Grade 6 Science** has a Nova Scotia Science Teacher's Resource (2008) to supplement the curriculum guide. Mike Stewart from BES was part of the NS Review Team for this resource.
- A Closer Look: Using Microscopes. Science Grades 3-6: A Curriculum Supplement (2003)
- Combined Classes Resources for 5/6 in 2012-2013.
- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- A Closer Look: Using Energy Meters, Science 6 and Science 9, A Curriculum Supplement (2008)
- Energy Around Us: Education for Sustainable Development and the 21<sup>st</sup> Century-check out the website at <http://gov.ns.ca/energy/renewables/energyaroundus/>

- One teacher from each elementary school attended a Science workshop on February 4<sup>th</sup>, 2011. Participants explored science concepts with connections to literacy, mathematics, visual arts, movement and social studies. Assessment and technology were embedded in the workshop. Each participant/school received an excellent selection of learning resources that are designed to promote hands-on, minds-on learning, including: P-6 Science collection of books (15 titles), science equipment (lab coats, science bag, goggles, aprons,..), measuring tools, science videos/CD's (Hands-On, Minds-on-Science, Doing and Thinking Science: Olympic Free-Style, First Canadian Expedition Downlink Event), Sciencesaurus book and other print resources/guides (outcome cards). In addition, each school with a Grade 6 class received one Electricity Kit and a Stereo Microscope. All the activities discussed at this workshop will be on a Moodle site for September 2011.
- Check out the “You Be the Chemist” program for grades 5-8 through the use of the website [www.youbethechemist.ca](http://www.youbethechemist.ca) . This educational tool is designed to engage students in the science of chemistry. 32 educator-reviewed and simply structured lesson plans with detailed activity sheets for class assessments.
- Tomatosphere, a curriculum-based program for schools, involves students in a germination experiment with sets of tomato seeds – a control group and a group that has been exposed to some aspect of the space environment. You receive 40 +/- 5 of the two groups FOR EACH CLASS ENROLLED. Sign up now at [www.tomatosphere.org](http://www.tomatosphere.org) involves grades 3-10. The detailed info was sent to schools (July 2012).

## Grade Seven

### Provincial Guide

- Go to <http://educators.ednet.ns.ca>, use your staff username and password, go to Learning Outcomes Framework, click on Science 7-10, then Science 7-10. A skeleton guide with SCO's will be available March 2012.
- Still using the older guides but the outcomes are fine and hopefully new guides very soon.

### Core Resources

- Science and Technology 7 Text / TR
- Science 7 Textbook (2012-2013)
- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Literacy Links: Science 7 and Science 8 (Draft, Nov 2005)-go to the protected site depot
- Energy Around Us: Education for Sustainable Development and the 21<sup>st</sup> Century-check out the website at <http://gov.ns.ca/energy/renewables/energyaroundus/>
- Check out the “You Be the Chemist” program for grades 5-8 through the use of the website [www.youbethechemist.ca](http://www.youbethechemist.ca) . This educational tool is designed to

engage students in the science of chemistry. 32 educator-reviewed and simply structured lesson plans with detailed activity sheets for class assessments.

- A “Rocks Kit” will be sent out to all schools with a grade 4 component in March 2012. Can be shared with the Grade 7 Science teachers also.
- A closer Look: Doing Project-Based Science. Grades 7-12 (Oct 2010)
- Tomatosphere, a curriculum-based program for schools, involves students in a germination experiment with sets of tomato seeds – a control group and a group that has been exposed to some aspect of the space environment. You receive 40 +/- 5 of the two groups FOR EACH CLASS ENROLLED. Sign up now at [www.tomatosphere.org](http://www.tomatosphere.org) involves grades 3-10. The detailed info was sent to schools (July 2012).

## Grade Eight

### Provincial Guide

- Go to <http://educators.ednet.ns.ca>, use your staff username and password, go to Learning Outcomes Framework, click on Science 7-10, then Science 7-10. A skeleton guide with SCO’s will be available March 2012.
- Still using the older guides but the outcomes are fine and hopefully new guides very soon.

### Core Resources

- Science and Technology 8 Text / TR
- Science 8 Textbook (2013-2014)
- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Literacy Links: Science 7 and Science 8 (Draft, Nov 2005)-go to the protected site depot
- Energy Around Us: Education for Sustainable Development and the 21<sup>st</sup> Century-check out the website at <http://gov.ns.ca/energy/renewables/energyaroundus/>
- Check out the “You Be the Chemist” program for grades 5-8 through the use of the website [www.youbethechemist.ca](http://www.youbethechemist.ca) . This educational tool is designed to engage students in the science of chemistry. 32 educator-reviewed and simply structured lesson plans with detailed activity sheets for class assessments.
- A closer Look: Doing Project-Based Science. Grades 7-12 (Oct 2010)
- Tomatosphere, a curriculum-based program for schools, involves students in a germination experiment with sets of tomato seeds – a control group and a group that has been exposed to some aspect of the space environment. You receive 40 +/- 5 of the two groups FOR EACH CLASS ENROLLED. Sign up now at [www.tomatosphere.org](http://www.tomatosphere.org) involves grades 3-10. The detailed info was sent to schools (July 2012).

## Grade Nine

### Provincial Guide

- Go to <http://educators.ednet.ns.ca>, use your staff username and password, go to Learning Outcomes Framework, click on Science 7-10, then Science 7-10. A skeleton guide with SCO's will be available March 2012.
- Still using the older guides but the outcomes are fine and hopefully new guides very soon.

### Core Resources

- Science Power 9 Text /TR
- Produce an Energy Around Us kit and resource booklet (2010-2011)
- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- A Closer Look: Using Energy Meters, Science 6 and Science 9, A Curriculum Supplement (2008)
- Energy Around Us: Education for Sustainable Development and the 21<sup>st</sup> Century-check out the website at <http://gov.ns.ca/energy/renewables/energyaroundus/>
- A closer Look: Doing Project-Based Science. Grades 7-12 (Oct 2010)
- Tomatosphere, a curriculum-based program for schools, involves students in a germination experiment with sets of tomato seeds – a control group and a group that has been exposed to some aspect of the space environment. You receive 40 +/- 5 of the two groups FOR EACH CLASS ENROLLED. Sign up now at [www.tomatosphere.org](http://www.tomatosphere.org) involves grades 3-10. The detailed info was sent to schools (July 2012).

## Grade 10

### Science 10 (Acad) SCI10

(BJSHS, FHCS, LRHS, NGRHS, NQRHS, PVEC)

*\* It is strongly recommended that all students take Science 10 as a prerequisite to more specialized study in science(s) in grades 11 and 12.*

### Provincial Guide

- Atlantic Canada Science Curriculum: Science 10 (Draft 2012)-a revised curriculum guide is still in editing mode-hopefully out in the Fall 2012- can be downloaded from the educator's site..
- Science 10: A Teaching Resource (2012) which will supplement the guide and the new Nova Scotia Science 10 textbook. Contains lots of activities and will also be out in Fall 2012-can be downloaded from the educator's site.
- **Science 10** is a hands-on, minds-on course for all students. It is student-centered and inquiry-based, focusing on STSE and skills. Science is about

doing and thinking, and there are multiple opportunities in Science 10 for students to be engaged in their learning.

### **Core Resources**

- The new Nova Scotia Science 10 textbook (Anderson & Boeknek) to support learning in **Science 10** was distributed to schools in January 2012-excellent text. This new book replaces the old 10 year old one. The student text addresses outcomes in four units—Earth and Space Science: Weather Dynamics, Physical Science: Chemical Reactions, Physical Science: Motion, and Life Science: Sustainability of Ecosystems. Each unit in Science 10 is worth 25 per cent of the course and each unit is compulsory-non-negotiable. The SCO's are addressed with all students' learning styles in mind.
- The Nova Scotia Science 10 Teacher Resource CD-ROM was distributed to schools in March 2012. The teacher's resource offers planning information, assessment tools and techniques, curriculum correlations, teaching strategies, answers to questions in the student text, science background information, notes and support for all activities and investigations, and a focus on project-based learning.
- **Science 10, Passages:** Online Science 10 passages were created as a literacy project. These resources complement the Science 10 curriculum and are embedded with literacy strategies. Teachers may access these passages at <http://science10.ednet.ns.ca>.
- **Science 10 Collection** comprises 65 books for classroom instruction and student learning and enjoyment (i.e. Canadian Disasters) was received in Feb 2011 to further support the Science 10 curriculum. This high quality resource supports differentiation of instruction in Science 10 and is intended to engage diverse learners. Each resource has been selected to address curriculum outcomes in Science 10. The straightforward text of the non-fiction titles delivers clear and fascinating information that invites readers to learn about Earth—its fiercest disasters, the impact of global warming, its weather and climate, its energy sources, and much more. Some books include explanatory diagrams, charts, and graphs that support understanding of science concepts. The rich, naturalistic, full-color photographs of the picture books combine with informative text engages students to experience all the wonders of the living, breathing world of science around us.
- Other resources will be put together on a Department Moodle.
- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Secondary Science: A Teaching Resource (1999)
- Tomatosphere, a curriculum-based program for schools, involves students in a germination experiment with sets of tomato seeds – a control group and a group that has been exposed to some aspect of the space environment. You receive 40 +/- 5 of the two groups FOR EACH CLASS ENROLLED. Sign up now at [www.tomatosphere.org](http://www.tomatosphere.org) involves grades 3-10. The detailed info was sent to schools (July 2012).

## Grade 11

### **Agriculture / Agrifood 11 (Acad) AGRICC11** (NGRHS)

*Recommended Prerequisite: Successful completion of Science 10*

#### **Provincial Guide**

- Agriculture / Agrifood 11 (Draft 2000)
- Meets the second science credit requirement for graduation

#### **Core Resources**

- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Secondary Science: A Teaching Resource (1999)
- Check out the Nova Scotia Department of Agriculture's THINKFARM Project. THINKFARM helps attract new people to careers in agriculture and supports beginning and transitioning farmers. The average age of farmers in NS is 57. The province must attract new people into farming to maintain and increase our current levels of production, as well as to contribute to good jobs and economic growth. Check out the website at [www.gov.ns.ca/thinkfarm](http://www.gov.ns.ca/thinkfarm) . NGRHS is offering the Agriculture/Agrifoods 11 course.

### **Advanced Biology 11 (Adv) BIOL11AD** (BJSHS, FHCS, NGRHS)

*Recommended Prerequisite: Successful completion of Science 10. Students in Advanced Biology 11 are expected to meet all the outcomes in Biology 11. The depth of treatment is the major distinction.*

#### **Provincial Guide**

- Advanced Biology 11 (Draft, October 2010)-new guide by 2012-2013. Also use Atlantic Canada Science Curriculum: Biology 11 and Biology 12 (2003)

#### **Core Resources**

- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Secondary Science: A Teaching Resource (1999)

### **Biology 11 (Acad) BIOL11** (BJSHS, FHCS, LRHS, NGRHS, NQRHS, PVEC)

*Recommended Prerequisite: Successful completion of Science 10*

#### **Provincial Guide**

- Atlantic Canada Science Curriculum: Biology 11 and Biology 12 (2003)- new guide by 2012-2013

#### **Core Resources**

- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Secondary Science: A Teaching Resource (1999)

### **Advanced Chemistry 11 (Acad) CHE11AD**

(BJSHS, FHCS)

*Recommended Prerequisite: Successful completion of Science 10 and Mathematics 10.*

*Students in Advanced Chemistry 11 are expected to meet all the outcomes Chemistry 11.*

*The depth of treatment is the major distinction.*

#### **Provincial Guide**

- Advanced Chemistry 11 and Advanced Chemistry 12 (Draft 2010). This guide is a supplement to the Atlantic Canada Science Curriculum: Chemistry 11 and Chemistry 12 Guide (2010)

#### **Core Resources**

- Chemistry 11 and Chemistry 12: A Teaching Resource ()
- Chemistry 11: A Teaching Resource (2010-2011)
- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Secondary Science: A Teaching Resource (1999)

### **Chemistry 11 (Acad) CHE11**

(BJSHS, FHCS, LRHS, NGRHS, NQRHS, PVEC)

*Recommended Prerequisite: Successful completion of Science 10*

#### **Provincial Guide**

- Atlantic Canada Science Curriculum: Chemistry 11 and Chemistry 12 (2010)

#### **Core Resources**

- Chemistry 11 and Chemistry 12: A Teaching Resource (2011)
- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Secondary Science: A Teaching Resource (1999)

**Forestry Management 11 (Open) FORMAN11  
(FHCS)**

**Provincial Guide**

- An Approved Local Course –last re-written in CCRSB.

**Core Resources**

**Human Biology 11 (Grad) BIOHUM11  
(FHCS)**

**Provincial Guide**

- An Approved Local Course –last re-written in March 2009 / HRSB. Workshop at the DOE on Feb 10-11, 2011 to revise the curriculum. New curriculum will hopefully be out in Sept 2012.

**Core Resources**

- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.

**Oceans 11 (Acad) OCNS11Y11 (new) & OCNS11 (old)  
(BJSHS, FHCS, LRHS, NGRHS, NQRHS, PVEC)**

**Provincial Guide**

- Oceans 11 (2011)
- Meets the second science credit requirement for graduation

**Core Resources**

- Oceans 11: A Teaching Resource Volume 1 and Volume 2 (supplement to the guide)-2011
- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Secondary Science: A Teaching Resource (1999)

**Advanced Physics 11 (Adv) PHY11AD  
(BJSHS, LRHS)**

*Prerequisites: Successful completion of Science 10 and Mathematics 10. Students in Advanced Physics 11 are expected to meet all the outcomes Physics 11. The depth of treatment is the major distinction*

**Provincial Guide**

- Advanced Physics 11 and Advanced Physics 12 (2009). This guide is a supplement to the Atlantic Canada Science Curriculum: Physics 11 and Physics 12 guide (2002).

**Core Resources**

- Advanced Physics 11 and Advanced Physics 12 (supplement)-TR
- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Secondary Science: A Teaching Resource (1999)

### **Physics 11 (Acad) PHY11**

(BJSHS, FHCS, LRHS, NGRHS, NQRHS, PVEC)

*Prerequisites: Successful completion of Science 10 and Mathematics 10*

#### **Provincial Guide**

- Atlantic Canada Science Curriculum: Physics 11 and Physics 12 (2002)

#### **Core Resources**

- Physics 11 and Physics 12: A Teaching Resource (2005).
- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Secondary Science: A Teaching Resource (1999)

## **Grade 12**

### **Advanced Biology 12 (Adv) BIOL12AD**

(not offered in SSRSB)

*Recommended Prerequisite: Successful completion of Biology 11 or Advanced Biology 11. Although Advanced Biology 12 is a logical follow-up to Advanced Biology 11, the latter is not considered a prerequisite. The core and optional topics for Advanced Biology 12 are the same as those for Biology 12.*

#### **Provincial Guide**

- Introduce Advanced Biology 12 (2012-2013)- new guide by 2012-2013. SCO's will be out by Dec 15, 2012.

#### **Core Resources**

- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Secondary Science: A Teaching Resource (1999)

### **Biology 12 (Acad) BIOL12**

(BJSHS, FHCS, LRHS, NGRHS, NQRHS, PVEC)

*Recommended Prerequisite: Successful completion of Biology 11*

#### **Provincial Guide**

- Atlantic Canada Science Curriculum: Biology 11 and Biology 12 (2003)- new guide by 2012-2013

#### **Core Resources**

- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Secondary Science: A Teaching Resource (1999)

### **Advanced Chemistry 12 (Acad) CHE12A**

(not offered in SSRSB)

*Recommended Prerequisite: Successful completion of Chemistry 11 or Advanced Chemistry 11 and Advanced Mathematics 11. Students in Advanced Chemistry 12 are expected to meet all the outcomes Chemistry 12. The depth of treatment is the major distinction.*

#### **Provincial Guide**

- Advanced Chemistry 11 and Advanced Chemistry 12 (Draft 2010). This guide is a supplement to the Atlantic Canada Science Curriculum: Chemistry 11 and Chemistry 12 guide (2010).

#### **Core Resources**

- Chemistry 12: A Teaching Resource (2010-2011)
- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Secondary Science: A Teaching Resource (1999)

### **Chemistry 12 (Acad) CHE12**

(BJSHS, FHCS, LRHS, NGRHS, NQRHS, PVEC)

*Recommended Prerequisite: Successful completion of Chemistry 11*

#### **Provincial Guide**

- Atlantic Canada Science Curriculum: Chemistry 11 and Chemistry 12 (2010).

#### **Core Resources**

- Chemistry 12: A Teaching Resource (2010-2011)
- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Secondary Science: A Teaching Resource (1999)

### **Food Science 12 (Academic/Science) FDSCI12**

(LRHS, NQRHS, PVEC)

#### **Provincial Guide**

- Food Science 12 (Implementation Draft 2003)
- Implement Food Science 12 (2013-2014)

#### **Core Resources**

- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Secondary Science: A Teaching Resource (1999)

### **Geology 12 (Acad) GEOL12**

(LRHS, PVEC)

*Replaces Canadian Geology 12 and Earth Science 12*

#### **Provincial Guide**

- Geology 12 (Implementation Draft 2002)
- Implement revised guide for Geology 12 (2013-2014)
- Meets the second science credit requirement for graduation

#### **Core Resources**

- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Secondary Science: A Teaching Resource (1999)

### **Advanced Physics 12 (Adv) PHYS12AD**

(LRHS)

*Prerequisites: Successful completion of Physics 11 or Advanced Physics 11; Mathematics 11 or Advanced Mathematics 11. Students in Advanced Physics 12 are expected to meet all the outcomes Physics 12. The depth of treatment is the major distinction.*

#### **Provincial Guide**

- Advanced Physics 11 and Advanced Physics 12 (2009). This guide is a supplement to the Atlantic Canada Science Curriculum: Physics 11 and Physics 12 guide (2002)

#### **Core Resources**

- Advanced Physics 11 and Advanced Physics 12 (supplement)
- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Secondary Science: A Teaching Resource (1999)
- DOE Examination sample questions (rec'd Jan 2011 and June 2011). The Department of Education provided schools with examination questions from their physics item bank. The questions have been put in booklet form so that teachers may use the booklet in whole as the final examination or in part to create their own examination for January and June 2011.

## **Physics 12 (Acad) PHY12**

(BJSHS, FHCS, LRHS, NGRHS, NQRHS, PVEC)

*Prerequisites: Successful completion of Physics 11 or Advanced Physics 11*

### **Provincial Guide**

- Atlantic Canada Science Curriculum: Physics 11 and Physics 12 (2002)

### **Core Resources**

- Physics 11 and Physics 12: A Teaching Resource (2005)
- Science Safety Guidelines Grades P-12 (2005). The **Science Safety Guidelines** gives clear information about chemical, MSDS, and general safety guidelines for laboratories. Teachers should refer to this when planning their investigations.
- Secondary Science: A Teaching Resource (1999)
- DOE Examination sample questions (rec'd Jan 2011 and June 2011). The Department of Education provided schools with examination questions from their physics item bank. The questions have been put in booklet form so that teachers may use the booklet in whole as the final examination or in part to create their own examination for January and June 2011.