Birchmount Park Collegiate Institute

Course Outline and Evaluation Profile 2019/2020

SNC 1D1
Credit Value: 1.00
Prerequisite: None

Department: Science | **Assistant Curriculum Leader: G. Wang**
Revised: Sept. 2019 | **Based upon "The Ontario Curriculum: Grades 9 and 10: Science, 2008"**

Birchmount Park Collegiate staff believes that all students can be successful in academic pathways. Varied and differentiated approaches to course work and assessments / evaluations will be utilized to support all students.

Course Description/Rationale/Overview:

This course enables students to develop their understanding of basic concepts in biology, chemistry, earth and space science, and physics, and to relate science to technology, society, and the environment. Throughout the course, students will develop their skills in the processes of scientific investigation. Students will acquire an understanding of scientific theories and conduct investigations related to sustainable ecosystems; atomic and molecular structures and the properties of elements and compounds; the study of the universe and its properties and components; and the principles of electricity. This course leads to a study of science at the academic level in grade ten.

Supports for Student Learning:

All teachers are available for extra help for students and consultation with parents & guardians. Each semester, teachers will announce and post information regarding times and location of extra-help sessions. Parents are welcome to call 416-396-6704 to set up a mutually convenient time to meet with or to talk to their child's teacher.

Students with **Individual Education Plans** can access supports through the GLE1O9 course, the Resource Room as well as supports from their classroom teacher. Students have ready access to computers through the Resource Room and the Library.

S.T.Y.L.E is an afterschool academic support program. The program runs on Tuesday, Wednesday and Thursday. Students are required to sign up for this program. Please contact the Guidance Department or a Vice-Principal.

Birchmount Park Collegiate teachers use "**Teach Assist**" which is a web-based mark book that can be accessed by students and parent / guardians at any time. The link to Teach Assist is on the School Website. Access requires the student's number.

GOOGLE Classroom – supports easy access to class information and subject materials.

Course /Department Policies:

All students are expected to meet school expectations for meeting key dates for course assignments and evaluations as well as following Birchmount Park Collegiate policies regarding late assignments, missed tests and academic honesty. All of these policies are clearly outlined in the Student Agenda Book and are posted on the school website:
http://schoolweb.tdsb.on.ca/birchmountpark/

Evaluation Due Dates: assignments, projects, presentations, quizzes, tests etc.
Key due dates are set in advance and are shared with students. Please note the following:

- An unexcused absence (skipping) results in a mark of **zero**.
- If you know you are going to miss a test, speak to the teacher beforehand to discuss your options in order to reschedule the test and avoid receiving a zero grade.
- If you are ill and miss a test, *you must speak to your teacher the next day to make arrangements to write the missed test*. Your parent or guardian must send a note with you confirming your illness. Otherwise a mark of zero will be recorded.

Please refer to "*Birchmount Park C.I. Student Agenda 2019/2020 – Assessment & Evaluation Policies*"

Academic Honesty: Please refer to *"Birchmount Park C. I. Agenda 2019/2020 – Academic Honesty"*

Learning Skills:

Learning Skills are skills and habits which are essential to success in school and in the workplace. The Learning Skills evaluated are: working independently; work habits/homework; teamwork; initiative; organization

Teachers report achievement of learning skills by using letter symbols: **N** = Needs Improvement, **S** = Satisfactory, **G** = Good, **E** = Excellent. *Learning skills* clearly affect levels of achievement, but they are *not* part of the evaluation of achievement and are not included in the midterm mark or final course mark.

Skills for Success:

1. Be present and actively involved in class every day
2. Self-Advocacy – ask for help as needed
3. Complete all assignments on time
4. Come prepared for class (i.e. pencils, binder, calculator)
5. Bring a positive attitude to learning.

Achievement Categories and Weighting:

The achievement chart provides a standard, province-wide method for teachers to use in assessing and evaluating their students' achievement. Students are evaluated according to the major categories or strands in each course. Ministry of Education curriculum documents provide detailed description of student achievement levels.

In this course, students are evaluated in four strands, according to the weightings shown:

70% Mark on Course Work

Students need to demonstrate achievement of all the overall expectations of the course. 70% of the final mark in the course will be based on work done prior to the culminating activities. Evaluations that are late, missing, and/or incomplete will affect a student's 70% grade.

Knowledge & Understanding	**20%**
Thinking & Inquiry	**20%**
Communication	**15%**
Applications	**15%**

30% Culminating Activity and Exam

The mark for the final report card will be the sum of the 70% mark and the 30% culminating activity and exam.

Lab Practical	**15%**
Written Exam	**15%**

Students have many responsibilities with regard to their learning, and these increase as they advance through secondary school. Students who are willing to make the effort required and who are able to monitor their thinking and learning strategies and apply themselves will soon discover that there is a direct relationship between this effort and their achievement, and will therefore be more motivated to work. Students who develop mental attitudes and ways of behaving that contribute to success in life will benefit as learners.

Resources

Text: On Science 9 – McGraw Hill Ryerson. The replacement cost is $100 .
Write your name inside the front cover & record the book number you are assigned here:

Big Ideas

Biology

- Ecosystems are dynamic and have the ability to respond to change, within limits, while maintaining their ecological balance.
- People have the responsibility to regulate their impact on the sustainability of ecosystems in order to preserve them for future generations.

Chemistry

- Elements and compounds have specific physical and chemical properties that determine their practical uses.
- The use of elements and compounds has both positive and negative effects on society and the environment.

Earth and Space Science

- Different types of celestial objects in the solar system and universe have distinct properties that can be investigated and quantified.
- People use observational evidence of the properties of the solar system and the universe to develop theories to explain their formation and evolution.
- Space exploration has generated valuable knowledge but at enormous cost.

Physics

- Electricity is a form of energy produced from a variety of non-renewable and renewable sources.
- The production and consumption of electrical energy has social, economic, and environmental implications.
- Static and current electricity have distinct properties that determine how they are used.

Illustrate what Science means to you or how it impacts your life:	

Overall Expectations:

By the end of the course, students will:

- demonstrate scientific investigation skills (related to both inquiry and research) in the four areas of skills (initiating and planning, performing and recording, analysing and interpreting, and communicating);
- identify and describe a variety of careers related to the fields of science under study, and identify scientists, including Canadians, who have made contributions to those fields

Biology

- assess the impact of human activities on the sustainability of terrestrial and/or aquatic ecosystems, and evaluate the effectiveness of courses of action intended to remedy or mitigate negative impacts;
- investigate factors related to human activity that affect terrestrial and aquatic ecosystems, and explain how they affect the sustainability of these ecosystems;
- demonstrate an understanding of the dynamic nature of ecosystems, particularly in terms of ecological balance and the impact of human activity on the sustainability of terrestrial and aquatic ecosystems.

Chemistry

- assess social, environmental, and economic impacts of the use of common elements and compounds, with reference to their physical and chemical properties;
- investigate, through inquiry, the physical and chemical properties of common elements and compounds;
- demonstrate an understanding of the properties of common elements and compounds, and of the organization of elements in the periodic table.

Earth and Space Science

- assess some of the costs, hazards, and benefits of space exploration and the contributions of Canadians to space research and technology;
- investigate the characteristics and properties of a variety of celestial objects visible from Earth in the night sky;
- demonstrate an understanding of the major scientific theories about the structure, formation, and evolution of the universe and its components and of the evidence that supports these theories.

Physics

- assess some of the costs and benefits associated with the production of electrical energy from renewable and non-renewable sources, and analyse how electrical efficiencies and savings can be achieved, through both the design of technological devices and practices in the home;
- investigate, through inquiry, various aspects of electricity, including the properties of static and current electricity, and the quantitative relationships between potential difference, current, and resistance in electrical circuits;
- demonstrate an understanding of the principles of static and current electricity.