Hamilton Wentworth District School Board
SIR WINSTON CHURCHILL SECONDARY SCHOOL

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COURSE: Grade 9 Science – Applied SNC1P

DEPARTMENT HEAD: R. Bukvic

CREDIT VALUE: 1

Curriculum Document: The Ontario Curriculum, Grade 9 and 10 Science

http://www.edu.gov.on.ca/eng/curriculum/secondary/science910_2008.pdf

Course Description:

In grade 9 Science, we continue with the approach taken in grade nine and introduce students to topics in the major branches of the sciences. Specifically, these will cover the interrelationships of living things in the world's ecosystems, our place in our solar system, the nature of electricity, and the structure & behaviour of matter. A variety of activities and inquiries will be used to help students understand concepts covered.

Overall Expectations:

By the end of this course, students will:

*A1. 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)

*A2. identify and describe careers related to the fields of science under study, and describe the contributions of scientists, including Canadians, to those fields.

B1. 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;

B2. investigate factors related to human activity that affect terrestrial and aquatic ecosystems, and explain how they affect the sustainability of these ecosystems;;

B3. 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.

C1. assess social, environmental, and economic impacts of the use of common elements and compounds, with reference to their physical and chemical properties;;

C2. investigate, through inquiry, the physical and chemical properties of common elements and compounds;

C3. demonstrate an understanding of the properties of common elements and simple compounds, and general features of the organization of the periodic table.

D1. analyse the major challenges and benefits of space exploration, and assess the contributions of Canadians to space exploration;

D2. investigate the properties of different types of celestial objects in the solar system and the universe;

D3. 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.

E1. assess the major social, economic, and environmental costs and benefits of using electrical energy, distinguishing between renewable and non-renewable sources, and propose a plan of action to reduce energy costs;

E2. investigate, through inquiry, the properties of static and current electricity and the quantitative relationships between potential difference, current, and
resistance in electrical circuits;

E3. demonstrate an understanding of the concepts and principles of static and current electricity.

**SECTION A* curriculum expectations will be evaluated throughout the course in specific evaluations and in the context of Learning Skills.

Determining a Grade:

Teachers will take into account various considerations before making a decision about the grade to enter on the report card. Determining a report card grade will involve teacher's professional judgment and interpretation of evidence (conversations, observations, products) and should reflect the student's most consistent level of achievement for each overall expectation, with special consideration given to more recent evidence.

Evaluation:

UNIT/STRANDS	EVALUATIONS	WEIGHT %
ECOLOGY	Food Chains and Food Webs B1 Global Biomes B2 Sustainable Living B3 Summative Unit Evaluation	**20 %**
CHEMISTRY	Safety Quiz, Lab Skill Evaluations C1 Properties of Matter C2, C3 Elements and Compounds C3 Summative Unit Evaluation	**20 %**
ASTRONOMY	Space Exploration D1 Constellations; Comets, Meteors & Asteroids D2 Our Solar System D3 Summative Unit Evaluation	**20 %**
ELECTRICITY	Renewable Energy Resources E1 Static and Current Electricity E3 Energy Consumption and Conservation E2 Summative Unit Evaluation	**10 %**
	TERM	**70%**
	Culminating Activity **FINAL EXAMINATION**	*10%* *20%*
	FINAL SUMMATIVE	**30 %**
	FINAL COURSE MARK	**100%**

Learning Skills:

The provincial report card provides a record of the learning skills you demonstrate in this course under the following categories: Responsibility, Organization, Independent Work, Collaboration, Initiative and Self-Regulation. Your performance in each of these skills will be reported separately except in cases where a specific learning skill is one of the expectations of the course. It should be noted that better achievement of the Learning Skills often corresponds to better academic achievement.

Textbooks:

All essential textbooks and resources will be provided to the student for use throughout the semester. Textbooks are the property of HWDSB and students will be responsible for lost or damaged resources.

Teaching Strategies will (include but not limited to):

- Be based on the knowledge and firm belief that all students can be successful
- Varied and differentiated methods that acknowledge and address how students learn
- Ensure that each student is given clear directions and examples for learning and for improvement
- Promote students' ability to assess their own learning and to set specific goals
- Provide ongoing feedback that helps students fill the gaps in their learning
- Encourage students to talk through their thinking and learning processes
- Provide many opportunities for students to practice and apply their developing knowledge and skills
- Involve caregiver communication throughout the semester and/or year

Teaching Students with Diverse Educational Needs:

Classroom teachers are the key educators of students who have special education needs. At Sir Winston Churchill Secondary School we believe:

- All students can succeed.
- Universal design and differentiated instruction are effective and interconnected means of meeting the learning or productivity needs of any group of students.
- Successful instructional practices are founded on evidence-based research, but guided & tempered by experience.
- Classroom teachers are key educators for a student's literacy and numeracy development.
- Each student has his or her own unique patterns of learning.
- Classroom teachers need the support of the larger community to create a learning environment that supports students with special education needs.

In any given classroom, students may demonstrate a wide range of learning styles and needs. Teachers plan programs that recognize this diversity and give students performance tasks that respect their particular abilities so that all students can derive the greatest possible benefit from the teaching and learning process.

Sir Winston Churchill Secondary School addresses the needs of all students under the Ministry's *Equity and Inclusive Education in Ontario Schools Guidelines*, and takes great care to meet the needs of students with special education needs as outlined in the Ministry's *The Individual Education Plan (IEP) Resource Guide.*

Missing Evidence of Leaning:

Students are responsible for:

- Providing evidence of their learning by completing all tests, demonstrations, projects, presentations and assignments to the best of their ability within established timelines.
- Using organizational and time management strategies to meet deadlines.
- Working collaboratively with their teachers to get extra help and support and manage their time when required.
- Ensuring that the evidence they provide is their own work, not the result of cheating or plagiarism.

If a student has not participated in learning activities in the classroom, and the teacher has not been able to evaluate the student through observations, conversations or student products, the teacher may not be able to evaluate student achievement of the overall expectations for a unit, subject or course. In such situations, the teacher will communicate with parents and seek the support of the student success team, student services and/or administration. In the case where a student is not attending, the school social worker will be involved. If after strategies for support have been put in place and the student has still not demonstrated achievement of the overall expectations of a course, the teacher will use "*Lower Limits*" on the report card to indicate where the student is on the continuum of learning. Lower Limits are as follows:

40	Additional learning required. Focus on remediation, revision and completion. Recommend credit recovery or summer school.
30	Significant additional learning required. May require additional supports, interventions or changes to program. May need to repeat course.
25	Used for grades 11 & 12 only. Means a student has had no opportunity to demonstrate achievement of the overall expectations due to unique circumstances (student just joined course or has been ill).
I	Used for grades 9 & 10 only. Means a student has had no opportunity to demonstrate achievement of the overall expectations due to unique circumstances (student just joined course or has been ill).
0	No evidence of learning.

Academic Honesty

Honesty is one of the keys to personal success; it demonstrates respect for self and others and promotes a positive school atmosphere. Honesty is both a virtue and an expectation of our society and school environment. Our school's academic policies are designed on a foundation of academic honesty.

Citing & Referencing

Assignments which use sources of information and which do not clearly and precisely indicate where these sources have been used are NOT eligible for evaluation, as it is impossible for the teacher to accurately determine where the student's ideas begin and end, and where the source information begins and ends. Students must ensure that their work is submitted with clear and precise citations and references. Keeping proper track of sources is a vital step in the process of completing work, and is not something that should be done only when an assignment is 'complete'.

Plagiarism is a form of cheating. The Ministry "*Growing Success*" document defines plagiarism as "the use or close imitation of the language and thoughts of another without attribution, in order to represent them as one's own original work." Plagiarism can occur in different ways including:

- Improper paraphrasing or paraphrasing without acknowledgement of the source;
- Quoting from a source without acknowledgement (copying);
- Cutting and pasting from an electronic source without acknowledgement, including graphic representations;
- Representing as his/her own a product that a student did not produce.

Consequences for initial incidents of academic dishonesty may include the following:

- Student/teacher conference
- Student/parent/teacher conference
- Confirmation of student understanding of academic honesty
- Completing the task under supervision
- Revising and resubmitting the task

Repeated actions of academic dishonesty will be treated as a violation of the code of conduct and will be referred to administration. The students and his/her parents will be made aware that this behaviour constitutes lying and/or theft and progressive discipline actions appropriate to these infractions will ensue. Ultimately, a mark of zero can be given for the product.