



GEORGE S. HENRY ACADEMY COURSE OUTLINE

Grade 9 Academic Science



COURSE CODE	SNC1D	GRADE	9
TEACHER(S)	Krystyna Kedzia, Paul Santos	CREDIT VALUE	1.0
DEPARTMENT	Science	PREREQUISITE	None

COURSE DESCRIPTION:

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.

Additional information can be found at: <http://www.edu.gov.on.ca/eng/curriculum/secondary/subjects.html>

COMMUNICATION

Please direct all questions or concerns regarding student progress or program of study to the course teacher. Please call the main office to leave a message at 416-395-3240.

CONCRETE LEARNING RESOURCES

Textbook: ON Science 9 (Replacement Cost \$90.00)

Educational Guest Speaker for Astronomy Unit

DIGITAL LEARNING RESOURCES

My School Day App - An App that allows you to stay up-to-date with in-class tasks.

GEORGE S. HENRY ACADEMY'S COURSE WORK POLICY

For each evaluation, the teacher will inform students of the **due date** and the **ultimate deadline**. The ultimate deadline is the last opportunity for students to submit an assignment for evaluation. Teachers may also use a variety of other methods for dealing with late and missed assignments at their discretion.

Strategies to assist students in meeting deadlines include:

- Peer tutoring
- Using the school app
- Using a personal agenda
- Seeking extra help from teachers
- Requesting for assistance with time management and organizational skills
- Getting help from parents/guardians
- Getting help from a caring adult in the school

ASSESSMENT AND EVALUATION OF STUDENT ACHIEVEMENT

Each course follows an achievement chart which enables teachers to make judgements about student work that are based on clear performance standards and on a body of evidence collected over time. Additional information can be found on the Ministry of Education website noted within the course description.

ACHIEVEMENT CHART CATEGORIES

Knowledge and Understanding (K & U): Subject-specific content acquired in each course (knowledge), and the comprehension of its meaning and significance (understanding)

Thinking (T): The use of critical and creative thinking skills and/or processes

Communication (C): The conveying of meaning through various forms

Application (A): The use of knowledge and skills to make connections within and between various contexts

COURSE WORK (70% of your overall grade)

Categories	%	Possible Assessments of Learning
K & U	30%	• knowledge of content (e.g., facts, terminology, definitions, safe use of equipment and materials) • understanding of content (e.g., concepts, ideas, theories, principles, procedures, processes)
T & I	15%	• use of initiating and planning skills and strategies (e.g., formulating questions, identifying the problem, developing hypotheses, selecting strategies and resources, developing plans) • use of processing skills and strategies (e.g., performing and recording, gathering evidence and data, observing, manipulating materials and using equipment safely, solving equations, proving) • use of critical/creative thinking processes, skills, and strategies (e.g., analysing, interpreting, problem solving, evaluating, forming and justifying conclusions on the basis of evidence)
C	15%	• expression and organization of ideas and information (e.g., clear expression, logical organization) in oral, visual, and/or written forms (e.g., diagrams, models) • communication for different audiences (e.g., peers, adults) and purposes (e.g., to inform, to persuade) in oral, visual, and/or written forms • use of conventions, vocabulary, and terminology of the discipline in oral, visual, and written forms (e.g., symbols, formulae, scientific notation, ISUs)
A	10%	• application of knowledge and skills (e.g., concepts and processes, safe use of equipment, scientific investigation skills) in familiar contexts • transfer of knowledge and skills (e.g., concepts and processes, safe use of equipment, scientific investigation skills) to unfamiliar contexts • making connections between science, technology, society, and the environment (e.g., assessing the impact of science on technology, people and other living things, and the environment) • proposing courses of practical action to deal with problems relating to science, technology, society, and the environment

FINAL EVALUATION (30% of your overall grade)		
Type	Description	%
Culminating Task	Presentation on Case Study	10%
Exam	Formal written examination during exam week	20%

UNITS OF STUDY/COURSE ROAD MAP (subject to change)
Units based on Ministry Course Profiles. Throughout this course, students will Unit A. Scientific Investigation Skills and Career Exploration 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 a variety of careers related to the fields of science under study, and identify scientists, including Canadians, who have made contributions to those fields. Unit B. Biology: Sustainable Ecosystems 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. Unit C. Chemistry: Atoms, Elements, and Compounds 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 compounds, and of the organization of elements in the periodic table. Unit D. Earth and Space Science: The Study of the Universe D1. Assess some of the costs, hazards, and benefits of space exploration and the contributions of Canadians to space research and technology; D2. Investigate the characteristics and properties of a variety of celestial objects visible from Earth in the night sky; 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.

Unit E. **Physics: The Characteristics of Electricity**

E1. 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;

E2. 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;

E3. Demonstrate an understanding of the principles of static and current electricity.

GEORGE S. HENRY ACADEMY'S LATE & MISSED EVALUATION POLICY

It is the responsibility of the student to make arrangements with their teacher for any missed course material and/or assignments. Extenuating circumstances will be considered on a case-by-case basis.

GEORGE S. HENRY ACADEMY'S ACADEMIC DISHONESTY POLICY

Cheating and plagiarism will not be condoned. For more information, refer to the Academic Honesty Policy found in the Student Handbook. The Student Handbook can be found in the George S. Henry Academy app.

SPECIALIST HIGH SKILLS MAJOR (SHSM) REQUIREMENTS

GRADE 11 AND 12 CREDITS	ENVIRONMENT	HEALTH & WELLNESS	HOSPITALITY & TOURISM
Major Credits	4	4	4
English (<i>including a CLA*</i>)	2	1	1
Mathematics (<i>including a CLA</i>)	1	1	1
Science or Social Sciences and Humanities (<i>including a CLA</i>) (<i>May be substituted with 1 coop credit</i>)	-	1	-
Business Studies or Science (<i>including a CLA</i>) (<i>May be substituted with 1 coop credit</i>)			1
Cooperative Education	2	2	2
TOTAL	9	9	9

*Contextualized Learning Activity