

## COURSE INFORMATION



**DATE:** February 2024

**SCHOOL:** Yeshiva High School of Ottawa

**DEPARTMENT HEAD:** N/A

**TEACHER:** Mr. David Jacobs

**DEPARTMENT:** General Studies

<b>CURRICULUM POLICY DOCUMENT</b>		<a href="https://www.dcp.edu.gov.on.ca/en/curriculum/secondary-science/courses/snc1w">https://www.dcp.edu.gov.on.ca/en/curriculum/secondary-science/courses/snc1w</a>	
<b>COURSE TITLE</b>	Science, Grade 9	<b>COURSE CODE</b>	SNC1W
<b>PRE-REQUISITE</b>	N/A	<b>GRADE &amp; TYPE</b>	Grade 9 Destreamed
<b>FULL YEAR / SEMESTER</b>	Semester	<b>CREDIT VALUE</b>	1.0

### COURSE DESCRIPTION

This course enables students to develop their understanding of concepts related to biology, chemistry, physics, and Earth and space science, and to relate science to technology, society, and the environment. Throughout the course, students will develop and refine their STEM skills as they use scientific research, scientific experimentation, and engineering design processes to investigate concepts and apply their knowledge in situations that are relevant to their lives and communities. Students will continue to develop transferable skills as they become scientifically literate global citizens.

### UNIT DESCRIPTIONS:

#### UNIT 1 – BIOLOGY

**TIME: 25 HOURS**

This year's biology unit focuses on studying ecosystem structures, including food webs and energy flow through nature, as well as the impacts of climate change on ecosystem sustainability. Students will explore how nature is connected, and come to appreciate humanity's place in every food web on the planet.

#### UNIT 2 — CHEMISTRY

**TIME: 25 HOURS**

Chemistry lays a groundwork for fundamentally understanding the nature of matter on an atomic and subatomic level. By studying the basic components of atoms, and how elements are ordered on the periodic table, students will learn how scientists order and classify things by physical and chemical properties, including reactivity. Students will also study the economic and environmental impacts of utilizing elements and compounds, with an eye toward developing a responsible attitude toward humanity's stewardship over nature.

#### UNIT 3 — PHYSICS

**TIME: 25 HOURS**

In this unit, we will focus on the nature of electricity. By building upon the lessons we learned about the structure of atoms in the chemistry unit, students will have the opportunity to study the effects of electrical flow in currents. Circuits will be used to model this, as well as explore how electricity can be used productively. We will also examine the environmental and economic impacts of electricity usage and explore alternative means of generating electricity that are more sustainable than fossil fuels.

**UNIT 4 – EARTH AND SPACE SCIENCE** **TIME: 25 HOURS**

The Earth has been humanity’s home since the dawn of our species, but we have already begun to push beyond the boundaries of our atmosphere into the great expanse of space. This unit will provide students with the chance to study how humanity has begun exploring space, as well as how we might continue with future planned missions, manned and unmanned, to moons and planets. We will also examine the economic and social consequences of space exploration.

**UNIT — SUMMATIVE PERFORMANCE TASKS** **TIME: 10 HOURS**

This course will include a summative project and a final exam, both including content from all units of the course.

STUDENT EVALUATION CRITERIA				
TERM – 70%		FINAL – 30%		FINAL REPORT CARD GRADE CALCULATION
Knowledge/Understanding	25%	Knowledge/Understanding	25%	
Inquiry/Thinking	25%	Inquiry/Thinking	25%	
Communication	25%	COMMUNICATION	25%	
Application	25%	Application	25%	

ASSESSMENT METHODS		
OBSERVATIONS:	CONVERSATIONS:	PRODUCTS:
<ul style="list-style-type: none"> <li>● Informal presentations</li> <li>● Reading skills</li> <li>● Writing process steps (graphic organizers, research notes, outlines, drafts, editing checklists)</li> <li>● Listening and speaking skills</li> <li>● Self-assessment</li> <li>● Records of practice including checklists, anecdotal notes (homework, classroom contributions, metacognition charts, notetaking)</li> </ul>	<ul style="list-style-type: none"> <li>● Peer feedback / editing</li> <li>● Group work records</li> <li>● Conferences (student- teacher, group)</li> <li>● Classroom contributions</li> <li>● Composition/ arrangements</li> <li>● Response Journals</li> </ul>	<ul style="list-style-type: none"> <li>● Review quizzes</li> <li>● Unit tests</li> <li>● Projects</li> <li>● Oral presentations</li> <li>● Assignments</li> <li>● Summative tasks</li> <li>● Final Examination (30%)</li> </ul>

LEARNING SKILLS	
Report Cards will include a letter grade for the following Learning Skills:	
<b>INDEPENDENT WORK</b>	<p><b>The student:</b></p> <ul style="list-style-type: none"> <li>▪ accomplishes tasks independently</li> <li>▪ accepts responsibility for accomplishing tasks</li> <li>▪ follows instructions</li> </ul>

<b>COLLABORATION</b>	<ul style="list-style-type: none"> <li>▪ regularly completes assignments on time and with care</li> <li>▪ uses time effectively</li> </ul>
	<p><b>The student:</b></p> <ul style="list-style-type: none"> <li>▪ works willingly and cooperatively with others</li> <li>▪ listens attentively, without interrupting</li> <li>▪ takes responsibility for his/her share of the work to be done</li> <li>▪ helps to motivate others, encouraging them to participate</li> <li>▪ shows respect for the ideas and opinions of others</li> </ul>
	<p><b>The student:</b></p> <ul style="list-style-type: none"> <li>▪ organizes work when faced with a number of tasks</li> <li>▪ devises and follows a coherent plan to complete a task</li> <li>▪ demonstrates ability to organize and manage information</li> <li>▪ follows an effective process for inquiry and research</li> </ul>
	<p><b>The student:</b></p> <ul style="list-style-type: none"> <li>▪ completes homework on time and with care</li> <li>▪ follows directions</li> <li>▪ shows attention to detail</li> <li>▪ perseveres with complex projects that require sustained effort</li> <li>▪ applies effective study practices</li> </ul>
	<p><b>The student:</b></p> <ul style="list-style-type: none"> <li>▪ seeks out new opportunities for learning</li> <li>▪ seeks necessary and additional information</li> <li>▪ requires little prompting to complete a task,</li> <li>▪ approaches new learning situations with confidence and a positive attitude</li> <li>▪ seeks assistance when needed</li> </ul>
	<p><b>The student:</b></p> <ul style="list-style-type: none"> <li>▪ sets individual goals and monitors own progress</li> <li>▪ seeks clarification or assistance when needed</li> <li>▪ reflects and assesses critically own strengths, needs and interests</li> <li>▪ perseveres and makes an effort when responding to challenges</li> </ul>
<b>ORGANIZATION</b>	
<b>RESPONSIBILITY</b>	
<b>INITIATIVE</b>	
<b>SELF-REGULATION</b>	

**NOTE:** The above chart is a reformatting of the skills identified in the Ministry of Education's *Guide to the Provincial Report Card, Grades 9 – 12 : Appendix C: pages 27 to 29* .

<b>POLICIES AND PROCEDURES</b>	
<b>ATTENDANCE</b>	<p>The Ontario Ministry of Education requires 110 hours of instruction for each course. As such, it is essential for the students to arrive punctually to each class.</p> <p>Students arriving more than ten minutes late will be marked “Late” on their report card.</p> <p>Students who are absent for an acceptable reason (see below) still have to make up the number of hours missed under the supervision of a teacher or the principal according to their availability. It is the student’s duty to determine and arrange this supervision, and YHSO does not guarantee teacher’s or principal’s availability.</p> <p><b><i>Students who are absent for non-acceptable reasons will forfeit their credit.</i></b></p> <p>ACCEPTABLE REASONS FOR ABSENCE</p> <ul style="list-style-type: none"> <li>• Medical reason (may require a physician’s note)</li> <li>• Family trips or special occasions (up to four missed classes per course)</li> </ul> <p>Regardless of reason for an absence, if a student misses more than 26 classroom hours they will forfeit their credit.</p>
<b>ASSIGNMENTS</b>	<p>Students are responsible to complete all their assignments and homework on time. Teachers will write all assignments, homework and tests on a classroom board, along with their due dates, but</p>

	<p>students are accountable to complete these assessments punctually. <b><i>Assignments handed in late may result in a deduction of marks.</i></b></p> <p>Teachers will post all assessments and assignments and their due dates on Google Classroom. Students and their parents will have access to the Google Classroom for their courses.</p>
<b>BEHAVIOUR</b>	<p>Students may not act in any manner that disrupts the education of another, or distracts a teacher. This includes:</p> <ul style="list-style-type: none"> <li>• Excessive noise</li> <li>• Physical disruptions</li> <li>• Eating (unless granted individual permission)</li> <li>• Use of technology not for schoolwork purposes</li> <li>• Acts of disrespect such as name calling, abusive or offensive language or gestures</li> </ul> <p>Failure to adhere to these rules will result in disciplinary action as described in the Student Handbook and Course Calendar.</p>
<b>PLAGIARISM</b>	<p>Academic integrity and honesty is expected from every student in Yeshiva High School of Ottawa. We take all instances of suspected dishonesty, plagiarism, or any form of “cheating” very seriously. A student who submits work that is, in whole or in part, plagiarized, will be subject to academic penalties. Repeated infractions may result in the loss of a credit and further disciplinary action. A student who assists another student in academic dishonesty may face academic consequences, including revocation of a credit.</p>