



## **Science 10 Course Outline Winter 2026**

**Instructor:** Ms. Carpio

**Email:** [donnalyn.carpio@pattisonhighschool.ca](mailto:donnalyn.carpio@pattisonhighschool.ca)

### **Course Overview:**

Science 10 is a foundational science course that introduces students to key concepts in biology, chemistry, physics, and astronomy. Students will investigate the role of DNA in inheritance and evolution, explore chemical reactions and their practical applications, examine energy transformations and their environmental impacts, and learn about the origin and structure of the universe. Through inquiry-based learning and real-world connections, students will develop scientific literacy, critical thinking skills, and an understanding of how science influences society and everyday life.

### **Big Ideas:**

<b>Unit 1: DNA</b>	DNA structure and function; pattern of inheritance; mutation; natural and artificial selection; applied genetics and ethical considerations.
<b>Unit 2: Chemical Processes</b>	Chemical reactions; acid-base chemistry; law of conservation of mass; energy change; practical applications and implications of chemical processes.
<b>Unit 3: Energy</b>	Nuclear energy and radiation; law of conservation of energy; potential and kinetic energy; transformation of energy; local and global impacts of energy transformations from technologies.
<b>Unit 4: Universe</b>	Formation of universe and astronomical data.

### **Course Materials:**

Students are required to bring a binder, notebook, pens, pencils, and the Science 10 workbook to every class.

### **Class Participation:**

Active daily engagement and participation are expected and will be assessed using a participation rubric. Students are encouraged to contribute respectfully to discussions and learning activities.

### **Attendance Policy:**

Students are expected to arrive on time and prepared to participate in class.

- Arrival within 5 minutes after the scheduled start time will be recorded as late.
- Arrival 15 minutes after the scheduled start time will be recorded as absent (late).

If you are absent, it is your responsibility to check Microsoft Teams for any notes, handouts, or announcements. Missed assignments must be completed and submitted in a timely manner to be eligible for full credit.

**Language Policy (English-Only):**

English is the language of instruction and communication in this classroom. Students are expected to use English at all times during class activities, discussions, and group work to support academic language development and ensure inclusive participation.

**Academic Honesty Policy:**

All submitted work must be original and completed with integrity. Academic dishonesty, including copying or plagiarism, will result in consequences such as a mark of zero or no credit for the assignment.

**Technology Policy:**

The use of technology, including cell phones and personal devices, is permitted only at the discretion of the teacher and for educational purposes.

**Grading:**

<b>Coursework</b>	<b>Value</b>
Participation	5%
Exit ticket	5%
Quizzes	20%
Worksheets and Labs	20%
Projects/Presentations	10%
Unit Tests	20%
Final Exam	20%
<b>Total</b>	<b>100%</b>

**Final Reminder:**

This course is an opportunity not only to pass, but to reach your full potential. Show up prepared, put in honest effort, and ask for help when you need it. If you stay committed and keep trying, you can succeed and be proud of how much you grow.