



Pre-AP Grade 9 Science

Rooted in Faith, Learning in Love, Dedicated to Excellence

The Pre-AP Science program at St. Mary's High School is an enrichment program that caters to motivated students that have a passion for science. While students can join this science stream at any point in their high school science career, getting off to a good start in grade 9 is always best. Students who complete the Advanced Placement (AP) Biology and/or Physics in their senior years are exceptionally well prepared for first year university programs in math, science, engineering and technology programs.

- Students must be highly motivated and studious. Grade 8 students must register for the SNC 1DP through Career Cruising as well as apply to the program by completing an application and teacher reference which can be found on the school website.



stmary.wcdsb.ca/programs/enrichment-extension/advanced-placement/

Energy • Systems and Interactions • Structure and Function • Sustainability and Stewardship • Matter • Continuity and Change

In the grade 9 and 10 Pre-AP science program at St. Mary's HS, the students will work in a collaborative manner to establish and enhance their thinking and inquiry skills by making more in depth connections between their learning and various scientific skills. The students will accomplish this while undertaking more vigorous and elaborate inquiry activities in the following fields of science:

Grade 9

Biology: Ecology
Chemistry: Matter
Physics: Electricity
Earth and Space: Space

Grade 10

Chemistry: Chemical Reactions
Biology: Organs and Tissues
Physics: Light and Optics
Earth and Space: Climate Change

BIG IDEAS

In grade 11 and 12, students will have an option of choosing from two AP Science Programs; Biology and Physics 1. These two programs are designed to take the students from a guided to an open inquiry approach to lab work that will engage and inspire students to investigate meaningful questions about the physical world.

AP Biology

Evolution
Cellular Energy Process
Cellular Communications
Genetics
Information Transfer
Ecology and Interactions

AP Physics 1

Kinematics and Dynamics
Circular Motion and Harmonic Motion
Energy and Momentum
Torque and Rotational Motion
Electric charge and force
DC Circuits
Waves and Sound