Harbord Collegiate Institute

Pure and Applied Sciences

The Harbord Science Department offers a rich program supporting scientific and environmental literacy through the development of fundamental concepts on which courses are based. Classroom instruction is based on the premise that students learn best when they are actively involved in their own learning. Science concepts are approached in an inquiry-based manner and are related to real-world situations.

All of our science courses focus on three main goals, as stated in the Ontario Curriculum:

1. To relate science to technology, society, and the environment
2. To develop the skills, strategies, and habits of mind required for scientific inquiry
3. To understand the basic concepts of science.

In grades 9 and 10, students survey four disciplines of science: earth and space science, biology, chemistry, and physics. The latter three disciplines can be studied further in specialized grade 11 and 12 courses. Diverse instructional approaches are used to construct meaningful learning experiences for all students.

Topics in Science , Grades 9 and 10				
	Earth and Space Sciences	**Biology**	**Chemistry**	**Physics**
Grade 9, Academic	The study of the Universe	Sustainable Ecosystems	Atoms, Elements, and Compounds	Characteristics of Electricity
Grade 10, Academic	Climate Change	Tissues, Organs, and Systems of Living things	Chemical Reactions	Light and Geometric Optics
Grade 10, Applied	Earth's Dynamic Climate	Tissues, Organs, and Systems	Chemical Reactions and their Practical Applications	Light and Applications of Optics

Who We Are

The faculty at Harbord is a diverse community of experienced educators with graduate degrees and additional qualifications. We are committed to helping our students understand the importance of science in our daily lives and preparing senior students for further studies after high school.

What We Do

We incorporate a variety of instructional, assessment, and evaluation strategies. We provide many hands-on opportunities for our students to develop research and investigation skills, problem-solving skills, critical-thinking skills, and communication skills. We integrate technology into our lessons with portable digital measuring instruments, simulations, and chromebooks, notebooks, and iPads. We enrich our curriculum with guest speakers, outreach organizations, and field trips. We challenge our students by supporting science fair projects and administering science contests in the senior grades. Our greenhouse contains an aquaponic ecosystem that supports co-curricular and extra-curricular learning.

“Science is a way of thinking much more than it is a body of knowledge.”

Carl Sagan

For more information, please contact 416-393-1650 ext. 20095.