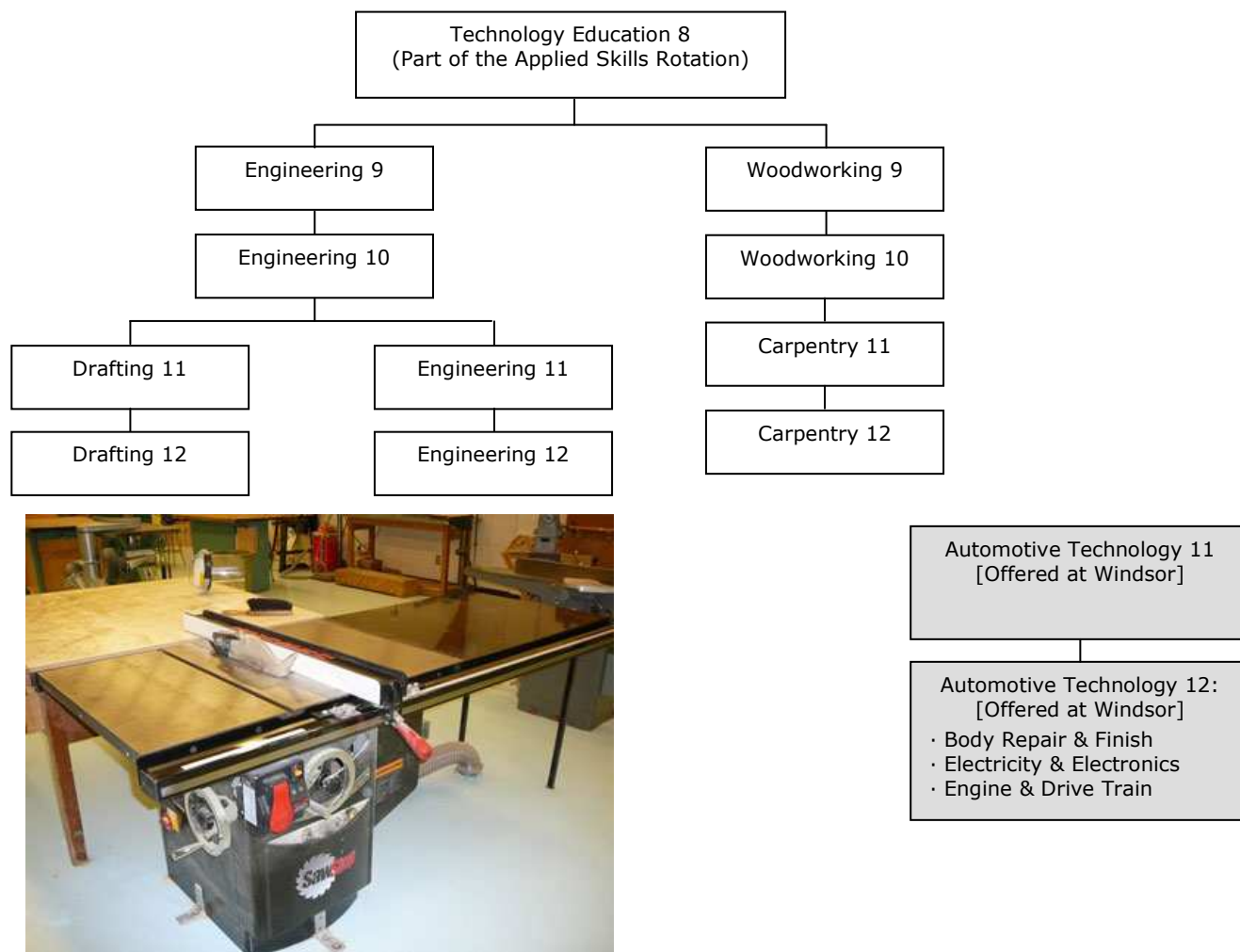


TECHNOLOGY EDUCATION

The Technology Education Department objective is to develop an interest in the technical field and applied sciences as an integral part of all students' general education. The program develops a foundation of skills, knowledge and safety consciousness as related to materials and technical procedures that can be used both avocationally and vocationally now and in the future. A hands-on approach to problem solving, creating and constructing is emphasized throughout the program.



Related Focus Areas: Trades and Technology and Science and Applied Science

COURSES

TECHNOLOGY EDUCATION - Engineering 9 (TE09ENG)

Supplemental Fee: \$40

This is an introductory engineering course where students are presented with a problem and expected to develop a solution. This course is divided into three major components: Drafting/Design, Electronics, and Fabrication processes. Students will divide one term between the computer drafting lab and electronics projects, and two terms fabricating projects using a variety of materials. Typical projects may include: a trebuchet, pop bottle rockets, bridge design and construction, electronic circuit design and build (eg. Sammy the Snake), and 3D Architectural House Design. Supplemental fees for this course help provide for consumable items used for take home projects such as wood, glue, metal, fasteners, electronic components, etc.

TECHNOLOGY EDUCATION - Woodwork 9 (TE09WW)

Supplemental Fee: \$25

In this course, students will be introduced to the safe use of a variety of hand and power tools through demonstrations, theory and hands-on experience while building a series of projects including an introductory project and a folding stool, as well as a project of the student's choice such as a small pine table. Machines used to build these projects will include the table saw, jointer, thickness planer, band saw, sanders, and drill press. Additional projects may be completed as time allows. Supplemental fees cover the purchase of supplies and materials for student take home projects.

TECHNOLOGY EDUCATION

TECHNOLOGY EDUCATION - Engineering 10 (YERT0A)

Supplemental Fee: \$40

This engineering course will expand upon concepts introduced in Engineering 9, allowing students to enhance and improve upon skills learned in Engineering 9. Students are presented with a problem and expected to develop a solution. This course is divided into three major components: Drafting/Design, Electronics, and Fabrication processes. Students will divide one term between the computer drafting lab and electronics projects, and two terms fabricating projects using a variety of materials. Typical projects may include: the cyborg mask, a robotic arm, a CO₂ car, electronic circuit and case design (eg. a sumo bot), and 3D Architectural Design. Supplemental fees for this course help provide for consumable items used for take home projects such as wood, glue, metal, fasteners, electronic components etc.

Please note that Engineering 9 is NOT a pre-requisite for Engineering 10.

TECHNOLOGY EDUCATION - Woodwork 10 (TEW10)

Supplemental Fee: \$25

In this course, students will practice the safe use of a variety of hand and power tools through demonstrations, theory and hands-on experience while building a series of introductory projects as well as a project of the student's choice such as a wooden toy unit and/or small furniture project. Machines used to build these projects will include the table saw, jointer, thickness planer, band saw, sanders, and drill press in addition to hand tools. Additional projects may be completed as time allows. Supplemental fees cover the purchase of supplies and materials for student take home projects.

TECHNOLOGY EDUCATION - Automotive Technology 11 (AT11)

Supplemental Fee: \$10

[offered at Windsor, open to Seycove Students in Grades 11 and 12]

This is an excellent course that introduces students to four areas of automotive technology: the automobile and society, safety, drive train, electrical systems, body and chassis. Students study the impact of the automobile on the environment and future possibilities to replace the internal combustion engine. Safety is stressed including WCB regulations and safe shop practices. Students are taught how to use tools and test equipment safely and correctly in order to service and maintain the drive train from engine to the wheels. Ignition, charging, starting and lighting, and accessory systems are studied. A unit is taught on basic metalworking skills.

TECHNOLOGY EDUCATION - Carpentry & Joinery 11 (CJ11)

Supplemental Fee: \$20

In this course, the student learns more advanced use of machine tools and joinery. An introductory project will be completed to refresh students' knowledge of safety and machine tool operation. Emphasis is placed on project design and adaptation. The majority of the course will be spent on a major project to be agreed upon by the student and teacher. Projects may include a kitchen table, hope chest, Adirondack chair, small entertainment center, and lathe work such as bowls or lamps. Supplemental fees cover the purchase of materials used in student take home projects. (Material costs may vary depending on the projects undertaken). TEW10 needs to be completed prior to enrolling in this course.

TECHNOLOGY EDUCATION - Drafting & Design 11 (DDF11)

The aim of this course is to introduce students to the exciting world of architecture, animation, and mechanical drafting. Students will explore mechanical drafting concepts, 3D architectural design, and 3D animation using Autosketch, Chief Architect and Lightwave software packages.

TECHNOLOGY EDUCATION - Engineering 11 (YERT1A)

Supplemental Fee: \$40

Students in this course learn design theory, welding and fabrication, small engine theory and basic material science. The focus this year is for students to research, design, and fabricate a project of the teacher's choice. This is a popular course for students interested in engineering, trades, and technical fields. Teamwork is a focus of this course. Supplemental fees go toward course enrichment beyond the normal core course curriculum to enhance the student's educational experience.

TECHNOLOGY EDUCATION

TECHNOLOGY EDUCATION - Automotive Technology 12 Body Repair & Finish (ATB12)

[offered at Windsor, open to Seycove Students in Grades 11 and 12] Supplemental Fee: \$20

A 12 level course specializing in theory and procedures of auto body repair. Topics include body construction, types of damage, hand and machine tools, safety, refinishing, oxy/acetylene and MIG welding, and rust repair. Students are introduced to safe and correct spray painting techniques in the spray booth as applied to individual panel repair. Theory is related to practical jobs taking place in the shop.

TECHNOLOGY EDUCATION - Automotive Technology 12 Electricity & Electronics (ATE12)

[offered at Windsor, open to Seycove Students in Grades 11 and 12] Supplemental Fee: \$10

A 12 level course specializing in electrical, tune-up, carburetion, and fuel injection theory and maintenance procedures. Topics include safety, ignition service, starting and charging systems, and carburetion. Theory is related to practical jobs taking place in the shop.

TECHNOLOGY EDUCATION - Automotive Technology 12 Engine & Drive Train (ADT12)

[offered at Windsor, open to Seycove Students in Grades 11 and 12] Supplemental Fee: \$10

A 12 level course specializing in major engine and drive repair theory and procedures. Topics include safety, valve grinding, steering system repair, brake and clutch repairs. Theory is related to practical jobs taking place in the shop.

TECHNOLOGY EDUCATION - Carpentry & Joinery 12 (CJ12)

Supplemental Fee: \$30

This millwork course, a continuation of CJ11, includes advanced production techniques and more individualized work. The student has the opportunity to construct a wide range of projects, with a major emphasis placed on project design and adaptation. Supplemental fees cover the purchase of supplies and materials for student take home projects. Material costs may vary depending on the projects undertaken.

TECHNOLOGY EDUCATION - Drafting & Design 12 (DDF12)

This course is a continuation of Drafting and Design 11 where students will learn more advanced drafting and animation techniques. Course work includes architectural design projects such as a condo, a restaurant, and a vacation home. This course is especially recommended for anyone considering a career in architecture, engineering design, or animation.

TECHNOLOGY EDUCATION - Engineering 12 (YERT2A)

Supplemental Fee: \$40

This course continues with themes presented in Engineering 11. This is an applied theory course where students are presented with a problem and expected to find a solution. Students will choose a vehicle to research, design, build and test. Possible projects may include competing in the Provincial Solar Power Vehicle Challenge, building a hovercraft or a cross-country vehicle. Teamwork is a focus of this course. Supplemental fees go toward course enrichment going beyond the normal core course curriculum to enhance the student's educational experience.