

(Automotive Labs cont.)

- ◇ Compression testing
- ◇ Timing
- ◇ Wheel bearing—service
- ◇ Brake—bleeding
- ◇ Oxygen sensor testing
- ◇ Throttle position sensor testing
- ◇ 4 cycle engines
- ◇ Cylinder performance test

The Skilled Trades Work Experience Semester

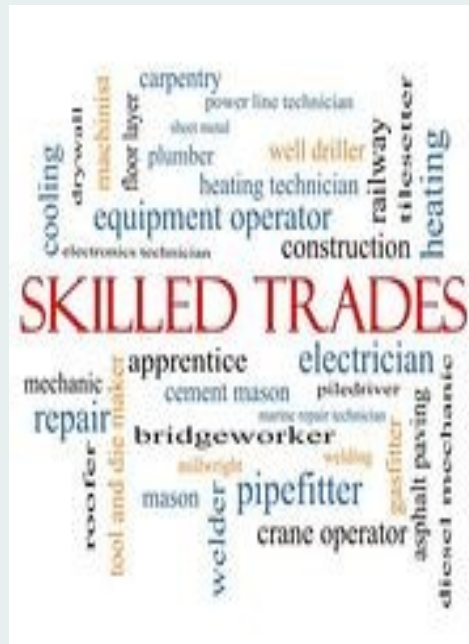
Students will complete the entire semester with one teacher and upon completion of the program, they will receive a Cooperative Education Certificate. As well, Cooperative education allows students to “test drive” a career by completing two 3-week work experiences in a field of interest. *Students will not miss any classes while out on work experience.

Work Placement Examples:

- Aeronautics
- Aircraft Maintenance
- Autobody shops
- Automotive dealerships
- Heavy duty mechanics shops
- Blacksmith
- Welding shops
- Metal fabrication shops
- Construction sites
- General contracting

Costs:

Additional costs for students may include basic safety equipment, such as overalls and steel toed boots, as well as safety glasses.

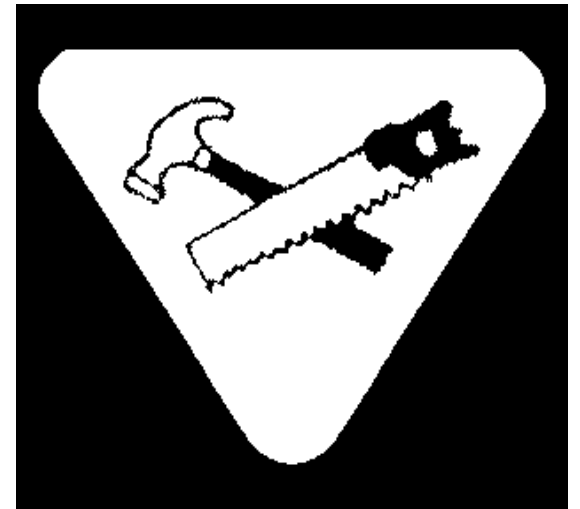


Earl Marriott Secondary

Career Education Centre
15751 16 Avenue
Surrey, BC V4A 1S1

604.531.8354
[www.surreyschools.ca/
schools/earlmarriott/](http://www.surreyschools.ca/schools/earlmarriott/)

EARL MARRIOTT SKILLED TRADES CO-OP



**For Further Information:
Contact the Career Centre**

604.531.8354



Your

Skilled Trades Co-op

Earl Marriott's Skilled Trade Co-op is designed to give students an opportunity to explore and gain hands-on skills in a variety of Red Seal trade areas such as mechanics, electrical, plumbing, carpentry, metal fabrication and welding. This program can be taken in Grade 11 or 12.

In this Co-op, students will complete a total of 24 credits including Automotive Technology 12, Skills Exploration 12, Work Place Math 11, Career Life Connections, Work Experience 12A and Work Experience 12B. ADST graduation requirements will be met upon completion of this program.

* This program prepares students for the competitive application process for the District Trades Partnership Programs.

First Semester Courses

An English 11
A Science 11
A Social Studies 11
An Elective.

Second Semester Courses

Automotive 11 or 12
Skills Exploration 12
Workplace Math 11
Career Life Connections
Work Experience 12A
Work Experience 12B

THE CURRICULUM

Carpentry

- Construction drawing & specifications
 - Measuring tools & layouts
 - Floors & support systems
 - Wood frame walls
- Labs
- ◇ Use of jig saw/circular saw/reciprocating saw
 - ◇ Framing a wall/window/door
 - ◇ Sheeting a wall
 - ◇ Framing rafters and trusses
 - ◇ Layout, cut & build stairs

Electrical

- Principles of electricity
 - Basic operation of electrical circuits
 - Common components of electrical circuits
 - Common drawings for electrical circuits
- Labs
- ◇ Splicing of wires
 - ◇ Wiring a 3-way switch/plug/light
 - ◇ Circuit breakers
 - ◇ Mock up wiring of electrical panel

Plumbing

- Piping & tubing materials
 - Valves & fittings
 - Connection methods
- Labs
- ◇ Use of glues & adhesives
 - ◇ Connecting copper/ABS/PEX pipe
 - ◇ Fittings and couplings
 - ◇ Soldering

Metal Fabrication/Welding

- Tools & equipment
 - Materials & processes
 - MIG welding
 - Oxy-acetylene cutting & welding
- Labs
- ◇ Wire feed welding (MIG)
 - ◇ Stick welding (SMAW)
 - ◇ Oxy-acetylene cutting/brazing/welding
 - ◇ Plasma cutting
 - ◇ Layout & fabrication techniques

Automotive Technology

Auto Body

- Paint removal
- Rust
- Patch Panels
- Fillers
- Sanding (rough, finish, guide coat)
- Primers
- Paint

Drive Train

- Drive Shaft removal/installation
- Universal joint—replacement
- Half shaft—removal/install/service
- Differential
- McPherson strut-removal/install

Electronics

- Using a mutimeter
- Electronics project
- Starter—rebuild
- Alternator—amp test
- MAP sensor
- Scanner—OBC 1/11

Labs

- ◇ Vehicle familiarizatin
 - ◇ Computer repair program
 - ◇ Disk brake—inspection/service
 - ◇ Drum brake—inspection/service
 - ◇ Wheel balancing
 - ◇ Under car—inspection
 - ◇ Under hood—inspection
 - ◇ Vehicle servicing
 - ◇ Spark plug—service
 - ◇ Soldering wiring
 - ◇ Battery—service/charging/load test
 - ◇ Jump starting
 - ◇ Testing cooling system
 - ◇ Tire changer
 - ◇ Charging system voltage test
 - ◇ Vacuum testing
 - ◇ Firing order
 - ◇ Ohms testing wires
- ...cont.