
KNOWLEDGE AND EMPLOYABILITY AUTO MECHANICS GRADES 8 AND 9

Knowledge and Employability junior high school occupational programs of study focus on the *exploration* stage of student understanding and progress. The junior high school occupational component consists of nine strands, each with specific units. Learning begins at the students' level of understanding and ability. Students progress through the levels in each area of study and unit, as appropriate, as they demonstrate increased proficiency and capabilities. Areas of study and related units may be combined to form a course or courses during each year of the students' involvement in the Knowledge and Employability occupational component. The interests and abilities of students, and school and community resources, determine the selected units and areas of study. The provision of activities and practical applications assist students in everyday tasks and in gaining entry-level employability skills.

Strand: Auto Mechanics

Unit A: Two-stroke Engine

Unit B: Four-stroke Engine

Unit C: Basic Car Care and Maintenance

Knowledge and Employability junior high occupational courses are designed to develop academic and basic/employability competencies through an applied and meaningful context.

Academic competencies are to be enhanced through each area of study and include:

- literacy
- numeracy
- technology.

Basic/employability competencies are to be developed within each area of study and include:

- work skills
- organizational skills
- workplace performance
- positive workplace attitudes.

Occupational competencies are the combination of knowledge, skills and work effort needed to perform a task. These competencies relate to the unit of study and include:

- career awareness
- applied academic skills
- safety
- knowledge (concepts and skills)
- workplace performance.

The Knowledge and Employability occupational component emphasizes the interrelationships among, and the connections to, other school subjects, the home, the workplace and the community. Integrated thematic units, projects and community partnerships link other school subjects and career development within the occupational component courses and units of study to promote cross-curricular, workplace and community connections. Teachers are encouraged to pursue various opportunities through community partnerships; e.g., the use of speakers, mentors and business sites for work-study or job shadowing.

Students develop and expand their career portfolios as they progress through Knowledge and Employability courses. Career portfolios include evidence that demonstrates student competencies and abilities; e.g., workplace assessments, photographs of products made in occupational component units and acknowledgement/recognition from community members.

UNIT A: TWO-STROKE ENGINE

Students will complete a variety of projects/activities to develop competencies in the maintenance of a two-stroke engine. They will add samples, photographs and other evidence of their progress to their career portfolios.

General Outcomes

Students will:

- develop academic competencies to enhance knowledge and skills when working with small engines and machinery
- develop basic/employability competencies through individual effort and interpersonal interaction while completing a variety of projects/activities
- develop occupational competencies through the combination of knowledge, skills and work effort needed to perform tasks related to the maintenance of small engines.

ACADEMIC COMPETENCIES

General Outcomes	Specific Outcomes
Students will reinforce the development of literacy and numeracy skills related to occupational contexts.	<i>Students will:</i> <ul style="list-style-type: none">• demonstrate effective oral and written communication skills• demonstrate an understanding of basic occupational terminology• use appropriate nonverbal communication skills• listen effectively• read and interpret appropriate directions, ingredients, graphs, charts, manuals and/or bulletins• read numbers up to four digits• add, subtract, multiply and divide, using fractions, decimals and whole numbers, and apply basic computations to complete a task• identify metric and imperial units of measurement• count and make change for money up to \$100• estimate the supplies, materials and equipment required for a task• enhance literacy and numeracy skills through basic computer operations.

BASIC/EMPLOYABILITY COMPETENCIES

General Outcomes	Specific Outcomes
<p>Students will develop work skills related to the completion of general and specific work tasks.</p>	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • follow safety procedures when working with tools, equipment and materials • work safely in school laboratories, shops and classrooms, and at off-campus work sites, with a variety of tools, equipment and materials • use correct measurement and layout procedures in the planning and completion of a task • demonstrate proficiency in the handling of tools, equipment and materials in a variety of activities • use machinery safely and proficiently to accomplish a specific task • demonstrate proper maintenance procedures for tools, equipment and machinery • demonstrate appropriate clean-up and sanitation of the work environment.
<p>Students will develop organizational skills to enhance their ability to complete work tasks.</p>	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • plan and prepare effectively to ensure the completion of tasks or activities • demonstrate critical thinking before making decisions • demonstrate creative thinking to complete a task • make decisions regarding selected aspects of a project or task • solve problems associated with the completion of a task • demonstrate the ability to design and draw plans for a project • make accurate estimations and calculations as necessary for the completion of tasks.
<p>Students will demonstrate workplace performance by using knowledge to apply work and organizational skills.</p>	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • follow instructions to complete all tasks • clarify task requirements to ensure completion • demonstrate attention to detail to accurately complete tasks • work independently and as members of a team • use initiative wisely when completing tasks and working with others • meet the standards set for task completion • demonstrate dependability by arriving on time and completing tasks on schedule • minimize waste when using various materials to complete a task • demonstrate a willingness to learn.
<p>Students will develop positive workplace attitudes to enhance their knowledge and skills.</p>	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • demonstrate safety consciousness in the work environment • demonstrate self-discipline • demonstrate integrity while working with others • demonstrate adaptability while working on a task • demonstrate perseverance to ensure task completion • demonstrate cooperation, selflessness and concern for others while working as members of a team

General Outcomes	Specific Outcomes
	<ul style="list-style-type: none">• demonstrate responsibility by meeting deadlines and completing tasks• demonstrate enthusiasm and a willingness to try when attempting a task• demonstrate their commitment to improvement by accepting advice and constructive criticism• demonstrate a regard for the environment by following proper procedures for the clean-up and disposal of materials.

OCCUPATIONAL COMPETENCIES

General Outcomes	Specific Outcomes	
	Level 1	Level 2
<p>Students will understand the employability characteristics of a successful worker.</p>	<p>Career Awareness</p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> • identify different areas of mechanical repair and maintenance; e.g., car, boat, motorcycle, heavy duty • identify various occupations in the small-engine repair industry • identify local businesses that work with small-engine repair. 	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • discuss the knowledge, skills and attitudes needed in various occupations available in the field of small-engine repair and related industries • identify the uses of small engines • identify jobs related to the repair of two-stroke engines • select and research the educational requirements, salary expectations and job responsibilities of various occupations in the field • identify senior high school courses related to mechanics.
<p>Students will relate academic skills to occupational requirements.</p>	<p>Applied Academic Skills</p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> • interpret basic written instructions from the instructor and in the text • interpret information from various media; e.g., videotapes, audiotapes • use a calculator effectively to solve simple problems • demonstrate knowledge of how to measure using metric and imperial units. 	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • locate and interpret text and diagrams in repair manuals • listen and ask questions to expand understanding • locate parts or related repair information, using a computer.
<p>Students will understand the function and safe application of tools, equipment and materials.</p>	<p>Safety</p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> • identify and safely use tools required for the maintenance and repair of small engines • identify and discuss the hazards associated with a shop environment • identify the safe and correct use of tools and equipment to ensure the proper clean-up of the shop area • describe the procedure for the proper disposal of relevant fluids. 	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • explain the importance of safe and careful work in a shop, including personal safety, tool and machine safety, and shop maintenance and clean-up • practise the safe and proper use of basic hand-held tools

General Outcomes	Specific Outcomes	
<p>Students will understand concepts and skills.</p>	Level 1	Level 2
	<p>Knowledge (Concepts and Skills)</p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> • explain and define common mechanics terms and tasks • identify common tools and materials used in the maintenance and repair of engines • identify and locate tools and materials around the shop • identify different types of gasoline engines and their functions • identify various common machines that use a two-stroke engine • identify the key parts of the basic two-stroke engine • define terms related to small-engine theory, performance and operation • identify proper fuel mixtures for various small engines • explain the importance of proper engine maintenance • explain proper starting and stopping procedures for a small engine. 	<ul style="list-style-type: none"> • explain and practise aspects of safe materials-handling procedures; e.g., fuel and fuel storage, starting and stopping engines, heat areas, moving parts, carbon monoxide • explain shop emergency procedures • describe the procedure for the proper disposal of relevant fluids. <p><i>Students will:</i></p> <ul style="list-style-type: none"> • identify the key parts of two-stroke engines and their functions; e.g., carburetors, filters, gas tank, cooling fins • identify engine systems; i.e., <ul style="list-style-type: none"> – ignition – cooling – lubrication – fuel • explain the importance of cooling a small engine • describe the use of common small-engine fasteners, adhesives, sealants and gaskets • explain the principles of fuel combustion in relation to small-engine operations • explain the operating principles of the two-stroke engine; i.e., intake, compression, power, exhaust stroke • explain the regular maintenance procedures for small engines; e.g., compression testing, spark testing, basic carburetor adjustments, lubrication, cooling system, spark plug service • explain the concepts of small-engine ignition systems; e.g., spark plugs, magneto, battery.

General Outcomes	Specific Outcomes	
<p>Students will apply concepts and skills in practical situations.</p>	Level 1	Level 2
	<p>Workplace Performance</p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> • demonstrate proper shop care; e.g., clean-up and placement of tools and equipment • demonstrate the use of small-engine hand tools and measuring instruments • locate and explain the function of the major parts of a small engine • measure appropriate fuel mixtures for small engines • demonstrate proper starting and stopping procedures • demonstrate the ability to effectively clean and maintain a small engine • use industry terms when working in the shop • demonstrate the ability to work independently or as part of a team. 	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • demonstrate a regard for the environment by properly cleaning up and disposing of waste materials • identify the key parts of two-stroke engines and use the appropriate terms to label them • choose appropriate tools for the task • use basic hand tools to remove basic small-engine parts; e.g., spark plug, air filter • mix an appropriate oil-gas mixture for a given two-stroke engine • demonstrate proper small-engine maintenance procedures; e.g., clean the engine, change the spark plugs, mix fuel and fill the fuel tank, check and replace the fuel and air filters • develop a schedule and conduct regular maintenance on and care of small engines • perform basic small-engine compression testing without starting the engine; e.g., spark test • compare various methods of cooling a small engine • demonstrate the ability to troubleshoot problems and nonstart situations.

UNIT B: FOUR-STROKE ENGINE

Students will complete a variety of projects/activities to develop competencies in the maintenance of a four-stroke engine. They will add samples, photographs and other evidence of their progress to their career portfolios.

General Outcomes

Students will:

- develop academic competencies to enhance knowledge and skills when working with small engines and machinery
- develop basic/employability competencies through individual effort and interpersonal interaction while completing a variety of projects/activities
- develop occupational competencies through the combination of knowledge, skills and work effort needed to perform tasks related to the maintenance of small engines.

ACADEMIC COMPETENCIES

General Outcomes	Specific Outcomes
Students will reinforce the development of literacy and numeracy skills related to occupational contexts.	<i>Students will:</i> <ul style="list-style-type: none">• demonstrate effective oral and written communication skills• demonstrate an understanding of basic occupational terminology• use appropriate nonverbal communication skills• listen effectively• read and interpret appropriate directions, ingredients, graphs, charts, manuals and/or bulletins• read numbers up to four digits• add, subtract, multiply and divide, using fractions, decimals and whole numbers, and apply basic computations to complete a task• identify metric and imperial units of measurement• count and make change for money up to \$100• estimate the supplies, materials and equipment required for a task• enhance literacy and numeracy skills through basic computer operations.

BASIC/EMPLOYABILITY COMPETENCIES

General Outcomes	Specific Outcomes
<p>Students will develop work skills related to the completion of general and specific work tasks.</p>	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • follow safety procedures when working with tools, equipment and materials • work safely in school laboratories, shops and classrooms, and at off-campus work sites, with a variety of tools, equipment and materials • use correct measurement and layout procedures in the planning and completion of a task • demonstrate proficiency in the handling of tools, equipment and materials in a variety of activities • use machinery safely and proficiently to accomplish a specific task • demonstrate proper maintenance procedures for tools, equipment and machinery • demonstrate appropriate clean-up and sanitation of the work environment.
<p>Students will develop organizational skills to enhance their ability to complete work tasks.</p>	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • plan and prepare effectively to ensure the completion of tasks or activities • demonstrate critical thinking before making decisions • demonstrate creative thinking to complete a task • make decisions regarding selected aspects of a project or task • solve problems associated with the completion of a task • demonstrate the ability to design and draw plans for a project • make accurate estimations and calculations as necessary for the completion of tasks.
<p>Students will demonstrate workplace performance by using knowledge to apply work and organizational skills.</p>	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • follow instructions to complete all tasks • clarify task requirements to ensure completion • demonstrate attention to detail to accurately complete tasks • work independently and as members of a team • use initiative wisely when completing tasks and working with others • meet the standards set for task completion • demonstrate dependability by arriving on time and completing tasks on schedule • minimize waste when using various materials to complete a task • demonstrate a willingness to learn.
<p>Students will develop positive workplace attitudes to enhance their knowledge and skills.</p>	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • demonstrate safety consciousness in the work environment • demonstrate self-discipline • demonstrate integrity while working with others • demonstrate adaptability while working on a task • demonstrate perseverance to ensure task completion • demonstrate cooperation, selflessness and concern for others while working as members of a team

General Outcomes	Specific Outcomes
	<ul style="list-style-type: none">• demonstrate responsibility by meeting deadlines and completing tasks• demonstrate enthusiasm and a willingness to try when attempting a task• demonstrate their commitment to improvement by accepting advice and constructive criticism• demonstrate a regard for the environment by following proper procedures for the clean-up and disposal of materials.

OCCUPATIONAL COMPETENCIES

General Outcomes	Specific Outcomes	
	Level 1	Level 2
<p>Students will understand the employability characteristics of a successful worker.</p>	<p>Career Awareness</p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> • identify different areas of mechanical repair and maintenance; e.g., car, boat, motorcycle, heavy duty • identify the uses of four-stroke engines • identify jobs related to the repair of four-stroke engines • develop career awareness through the personal and career relevance of the competencies developed within this unit. 	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • demonstrate knowledge of the uses of four-stroke engines in the workplace • select various occupations related to small engines and research related educational requirements, salary expectations and job responsibilities • identify local small-engine repair occupations and opportunities; e.g., lawn mower, boat, motorcycle • identify senior high school courses related to mechanics.
<p>Students will relate academic skills to occupational requirements.</p>	<p>Applied Academic Skills</p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> • interpret basic written instructions from the instructor and in the text • identify common mechanics terms and tasks • interpret information from various media; e.g., videotapes, audiotapes • use a calculator effectively to solve simple problems • demonstrate knowledge of how to measure using metric and imperial units. 	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • locate and interpret information in repair manuals • listen and ask questions to expand understanding • interpret graphs and diagrams related to engines • locate parts or related repair information, using a computer.
<p>Students will understand the function and safe application of tools, equipment and materials.</p>	<p>Safety</p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> • identify and safely use tools required for the maintenance and repair of small engines • identify and discuss the hazards associated with a shop environment 	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • explain the importance of safe and careful work in a shop, including personal safety, tool and machine safety, and shop maintenance and clean-up • practise the safe and proper use of basic hand-held tools

General Outcomes	Specific Outcomes	
<p>Students will understand concepts and skills.</p>	<p style="text-align: center;">Level 1</p> <ul style="list-style-type: none"> • identify the safe and correct use of tools and equipment to ensure the proper clean-up of the shop area • describe the procedure for the proper disposal of relevant fluids. 	<p style="text-align: center;">Level 2</p> <ul style="list-style-type: none"> • explain and practise aspects of safe materials-handling procedures; e.g., fuel and fuel storage, starting and stopping engines, heat areas, moving parts, carbon monoxide • explain shop emergency procedures • describe the procedure for the proper disposal of relevant fluids.
	<p>Knowledge (Concepts and Skills)</p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> • identify common tools and materials used in the maintenance and repair of engines • locate tools and materials around the shop • differentiate between a two- and a four-stroke engine • identify various common machines that use a four-stroke engine • identify the key parts of a four-stroke engine • explain the importance of proper engine maintenance • describe the procedure for checking the oil • describe the procedures for measuring and adding fuel. 	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • identify the proper tools used for the maintenance and repair of small engines • explain four-stroke cycle theory • identify engine support systems and their functions; i.e., fuel, lubrication, cooling, ignition, air induction, exhaust • explain the regular maintenance procedures for small-engines; e.g., changing the oil • explain the operation of small-engine ignition systems; e.g., spark plugs, magneto, battery • discuss the procedures for winterizing or storing small gas engines • explain the importance of cooling a small engine • describe small-engine tools and measuring instruments • identify common small-engine fasteners, adhesives and gaskets.

General Outcomes	Specific Outcomes	
<p>Students will apply concepts and skills in practical situations.</p>	Level 1	Level 2
	<p>Workplace Performance</p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> • use technical terms when working in the shop • demonstrate proper shop care and clean-up • develop the ability to work independently or as part of a team • demonstrate proper starting and stopping procedures • perform proper fueling procedures for a small engine • demonstrate the ability to effectively clean and maintain a small engine. 	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • demonstrate a regard for the environment by properly cleaning up and disposing of waste materials • demonstrate proper small-engine maintenance procedures; e.g., clean the engine, change the oil and spark plugs, mix fuel and fill the fuel tank, check and replace the fuel and air filters • develop a schedule and conduct regular maintenance on and care of small engines • demonstrate the ability to troubleshoot problems and nonstart situations; e.g., check the fuel and air filters, check the spark plugs and magneto.

UNIT C: BASIC CAR CARE AND MAINTENANCE

Students will complete a variety of projects/activities to develop competencies in the maintenance of an automobile engine. They will add samples, photographs and other evidence of their progress to their career portfolios.

General Outcomes

Students will:

- develop academic competencies to enhance knowledge and skills when working with engines and machinery
- develop basic/employability competencies through individual effort and interpersonal interaction while completing a variety of projects/activities
- develop occupational competencies through the combination of knowledge, skills and work effort needed to perform tasks related to mechanics and car care.

ACADEMIC COMPETENCIES

General Outcomes	Specific Outcomes
Students will reinforce the development of literacy and numeracy skills related to occupational contexts.	<i>Students will:</i> <ul style="list-style-type: none">• demonstrate effective oral and written communication skills• demonstrate an understanding of basic occupational terminology• use appropriate nonverbal communication skills• listen effectively• read and interpret appropriate directions, ingredients, graphs, charts, manuals and/or bulletins• read numbers up to four digits• add, subtract, multiply and divide, using fractions, decimals and whole numbers, and apply basic computations to complete a task• identify metric and imperial units of measurement• count and make change for money up to \$100• estimate the supplies, materials and equipment required for a task• enhance literacy and numeracy skills through basic computer operations.

BASIC/EMPLOYABILITY COMPETENCIES

General Outcomes	Specific Outcomes
<p>Students will develop work skills related to the completion of general and specific work tasks.</p>	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • follow safety procedures when working with tools, equipment and materials • work safely in school laboratories, shops and classrooms, and at off-campus work sites, with a variety of tools, equipment and materials • use correct measurement and layout procedures in the planning and completion of a task • demonstrate proficiency in the handling of tools, equipment and materials in a variety of activities • use machinery safely and proficiently to accomplish a specific task • demonstrate proper maintenance procedures for tools, equipment and machinery • demonstrate appropriate clean-up and sanitation of the work environment.
<p>Students will develop organizational skills to enhance their ability to complete work tasks.</p>	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • plan and prepare effectively to ensure the completion of tasks or activities • demonstrate critical thinking before making decisions • demonstrate creative thinking to complete a task • make decisions regarding selected aspects of a project or task • solve problems associated with the completion of a task • demonstrate the ability to design and draw plans for a project • make accurate estimations and calculations as necessary for the completion of tasks.
<p>Students will demonstrate workplace performance by using knowledge to apply work and organizational skills.</p>	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • follow instructions to complete all tasks • clarify task requirements to ensure completion • demonstrate attention to detail to accurately complete tasks • work independently and as members of a team • use initiative wisely when completing tasks and working with others • meet the standards set for task completion • demonstrate dependability by arriving on time and completing tasks on schedule • minimize waste when using various materials to complete a task • demonstrate a willingness to learn.
<p>Students will develop positive workplace attitudes to enhance their knowledge and skills.</p>	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • demonstrate safety consciousness in the work environment • demonstrate self-discipline • demonstrate integrity while working with others • demonstrate adaptability while working on a task • demonstrate perseverance to ensure task completion • demonstrate cooperation, selflessness and concern for others while working as members of a team

General Outcomes	Specific Outcomes
	<ul style="list-style-type: none">• demonstrate responsibility by meeting deadlines and completing tasks• demonstrate enthusiasm and a willingness to try when attempting a task• demonstrate their commitment to improvement by accepting advice and constructive criticism• demonstrate a regard for the environment by following proper procedures for the clean-up and disposal of materials.

OCCUPATIONAL COMPETENCIES

General Outcomes	Specific Outcomes	
	Level 1	Level 2
<p>Students will understand the employability characteristics of a successful worker.</p>	<p>Career Awareness</p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> list the employability skills needed to be a service centre technician identify local employment opportunities in the automotive services field. 	<p><i>Students will:</i></p> <ul style="list-style-type: none"> identify requirements for jobs in the automotive services field; e.g.: <ul style="list-style-type: none"> types of jobs job locations training required salary expectations certification required job responsibilities research current employment opportunities available in the automotive services field identify available senior high school courses related to mechanics.
<p>Students will relate academic skills to occupational requirements.</p>	<p>Applied Academic Skills</p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> interpret basic written instructions from the instructor and in the text interpret information from various media; e.g., videotapes, audiotapes. 	<p><i>Students will:</i></p> <ul style="list-style-type: none"> read, interpret and follow the manufacturer's instructions and specifications listen and ask questions to expand understanding use a computer to locate vehicle fluid types and maintenance schedules.
<p>Students will understand the function and safe application of tools, equipment and materials.</p>	<p>Safety</p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> follow proper safety procedures when cleaning and performing vehicle maintenance identify and wear appropriate safety equipment and clothing (personal protective equipment/PPE) demonstrate the proper procedures for cleaning up spills of various fluids use cleaning tools and equipment and vehicle cosmetic/cleaning products safely 	<p><i>Students will:</i></p> <ul style="list-style-type: none"> practise safety consciousness when dealing with hot fluids; e.g., oil demonstrate how to safely brace, lift or raise vehicles on jacks or hoists recognize and remove hazards in the workplace identify Hazardous Household Product Symbols (HHPS) and Workplace Hazardous Materials Information System (WHMIS) symbols on relevant chemicals.

General Outcomes	Specific Outcomes	
	Level 1	Level 2
<p>Students will understand concepts and skills.</p>	<p>Level 1</p> <ul style="list-style-type: none"> • identify Hazardous Household Product Symbols (HGPS) and Workplace Hazardous Materials Information System (WHMIS) symbols on relevant chemicals. <p>Knowledge (Concepts and Skills)</p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> • identify the importance of maintaining a clean car; e.g., avoid expensive repairs, improve reliability and safety, improve efficiency, extend the life of the vehicle • explain the proper procedures for washing the exterior of a vehicle • explain the cleaning requirements for the interior of a vehicle • identify products used for the care and cleaning of a car's interior • identify and locate a vehicle's major mechanical and structural components that require regular service and care • discuss the basic client services related to automobile care and maintenance; i.e., application of knowledge, communication skills and safety practices • demonstrate knowledge of effective tire maintenance procedures • demonstrate knowledge of vehicle maintenance schedules and procedures. 	<p>Level 2</p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> • identify potential engine trouble signs; e.g., warning lights or gauges, unusual odours or noises, burning oil, leaks • identify the factors that affect client satisfaction; e.g., time, tolerance, appearance, quality • identify the proper use of products used to clean a painted surface, degrease components, wax and polish a surface, and repair chips • identify, from the owner's manual, a vehicle's recommended type and grade of motor oil and types of: <ul style="list-style-type: none"> – engine coolant – brake, power-steering and transmission fluids – filters.
<p>Students will apply concepts and skills in practical situations.</p>	<p>Workplace Performance</p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> • demonstrate safe work habits • demonstrate care when cleaning the exterior and interior of a vehicle • demonstrate the proper use of products used to clean the interior of a vehicle 	<p><i>Students will:</i></p> <ul style="list-style-type: none"> • demonstrate the ability to operate specialized cleaning equipment and take a methodical approach to cleaning vehicle interiors and exteriors

General Outcomes	Specific Outcomes	
	<p style="text-align: center;">Level 1</p> <ul style="list-style-type: none"> • demonstrate the proper procedures for the use of hand- and pressure-washing equipment • demonstrate effective cleaning and vacuuming of the interior of a vehicle • demonstrate a visual inspection of the fluid levels, tires, hoses, belts, lights, accessories and battery • inspect the body of a vehicle for damage or rust • use proper clothing and protective equipment (PPE). 	<p style="text-align: center;">Level 2</p> <ul style="list-style-type: none"> • demonstrate the proper use of products used to clean a painted surface, degrease components, wax and polish a surface, and repair chips • understand and follow a paint code • check and adjust all fluid levels; e.g., oil, steering fluid, wiper fluid • identify signs of tire tread wear • measure tire pressure and inflate tires to the proper pressure, as appropriate • record maintenance procedures • inspect the body of a vehicle for completed repairs • develop a service schedule for a given vehicle and include checks on fluids, filters, tires, belts/chains, battery and lights • perform entry-level lubrication fluid (lube) servicing • demonstrate an ability to boost or jump-start a vehicle • inspect, visually, all areas of an automobile for wear and damaged parts; e.g., tires, belts, shocks.

