Great Oaks Automotive Refinishing and Collision Repair Essential Skills Profile

This profile provides an outline of the skills required for successful completion of this career program. Additional information is located on the Great Oaks website at https://hs.greatoaks.com/future-students/essential-skills-for-high-school-programs and selecting the corresponding career program.

Recommended WorkKeys® Scores for Automotive Refinishing and Collision Repair

Applied Mathematics – 4
Workplace Documents – 4
Graphic Literacy – 5

*Practice tests and more information at https://jobseeker.ohiomeansjobs.monster.com/Assessments/Home.aspx

Recommended Essential Skills to Successfully Complete the Program			
Rating Key:	**Low = Slightly Essential**	**Medium = Essential**	**High = Very Essential**

Key Vocational Factors		**Rating**
Visual Acuity	The ability to detect differences/details visually	High
Auditory Acuity	The ability to detect differences in pitch/sound	Medium
Oral Communication	The ability to express/explain ideas	High
Oral Expression	The ability to verbally explain and express self in an intelligible manner so others will understand	High
Written Communication	The ability to communicate in a written format and record information accurately	Medium
Physical Mobility/Strength	The ability to lift 50 pounds or more	High
Eye-Hand Coordination/ Dexterity	The ability to use tools to ensure work is completed	High

Worker Trait Skills	**Rating**
Ability to get along with others	High
Ability to work independently, without close supervision	High
Ability to work toward work including tasks of minimal interest	High
Ability to stick to assigned task to a positive/expected conclusion	High
Ability to work accurately, recheck and correct work to industry standards	High
Ability to follow and retain:	
Multistep oral instructions	High
Written instructions/technical manuals - multistep	High
Simple to complex diagram instructions	High
Visual models or demonstrated instructions	High
Ability to use tools of trade (trim or molding tools, sheers, pullers, pneumatic hammer, metal cutters, etc.)	High
Ability to use numerical data (count, measure, compute, etc.) in applied setting	High

Ability to discriminate between objects of similar:	
Size	High
Shape	High
Color	High
Spatial Relationship	High
Dexterity-Fine and gross finger/motor	High
Ability to organize work process/follow defined procedures	High
Able to sequence events or follow a sequence as necessary	High
Active Listening: Give full attention to what other people are saying, taking time to understand the points being made, asking appropriate questions and not interrupting	High

Applied Mathematics Skills * Recommended WorkKeys® Scores 4	
Understanding of numbers	Work with whole numbers and decimals. Convert fractions to decimals and/or convert from decimals to percentages.
Mathematical calculations	Use one or two-step calculations to solve problems, decide what information, calculations or unit conversions to use to answer a problem
Solving problems with math	Solve problems that require mathematical operations with multiple units (e.g. 6 feet 4 inches or 4 hours 30 minutes), identify calculation mistakes
Workplace Documents Skills * Recommended WorkKeys® Scores 4	
Complexity	Straightforward with some longer sentences and may contain conditional situations
Information and detail	Mostly informative and can be several details
Vocabulary	Mostly common with some advanced words
Document type	Informational, instructional and policy-type documents
Graphic Literacy Skills * Recommended WorkKeys® Scores 5	
Using charts/graphs	Locate information in charts or graphs
Interpreting information	Compare two or more pieces of information, identify trends/patterns, make inference and identify graphics that accurately represents data

Additional Recommended Abilities

Manual Dexterity	The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
Information Ordering	The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).

Oral Comprehension	The ability to listen to and understand information and ideas presented through spoken words and sentences.
Repairing	Repairing machines or systems using the needed tools.
Complex Problem Solving	Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.

Knowledge Required in Automotive Refinishing and Collision Repair

Customer and Personal Service	Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
Mechanical	Knowledge of machines and tools, including designs, uses, repair, and maintenance.
English Language	Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.

Automotive Refinishing and Collision Repair Activities

Follow supervisors' instructions as to which parts to restore or replace and how much time the job should take.	Review damage reports, prepare or review repair cost estimates, and plan work to be performed.
Inspect repaired vehicles for proper functioning, completion of work, dimensional accuracy, and overall appearance of paint job, and test drive vehicles to ensure proper alignment and handling.	Sand body areas to be painted and cover bumpers, windows, and trim with masking tape or paper to protect them from the paint.
Fit and weld replacement parts into place, using wrenches and welding equipment, and grind down welds to smooth them, using power grinders and other tools.	Prime and paint repaired surfaces, using paint spray guns and motorized sanders.
Remove damaged sections of vehicles using metal-cutting guns, air grinders and wrenches, and install replacement parts using wrenches or welding equipment.	Chain or clamp frames and sections to alignment machines that use hydraulic pressure to align damaged components.
Fill small dents that cannot be worked out with plastic or solder.	File, grind, sand, and smooth filled or repaired surfaces, using power tools and hand tools.
Remove upholstery, accessories, electrical window-and-seat-operating equipment, and trim to gain access to vehicle bodies and fenders.	Position dolly blocks against surfaces of dented areas and beat opposite surfaces to remove dents, using hammers.

Mix polyester resins and hardeners to be used in restoring damaged areas.	Adjust or align headlights, wheels, and brake systems.
Read specifications or confer with customers to determine the desired custom modifications for altering the appearance of vehicles.	Cut and tape plastic separating film to outside repair areas to avoid damaging surrounding surfaces during repair procedure and remove tape and wash surfaces after repairs are complete.
Remove small pits and dimples in body metal, using pick hammers and punches.	Fit and secure windows, vinyl roofs, and metal trim to vehicle bodies, using caulking guns, adhesive brushes, and mallets.
Measure and mark vinyl material and cut material to size for roof installation, using rules, straightedges, and hand shears.	Remove damaged panels, and identify the family and properties of the plastic used on a vehicle.
Replace damaged glass on vehicles.	Soak fiberglass matting in resin mixtures and apply layers of matting over repair areas to specified thicknesses.
Clean work areas, using air hoses, to remove damaged material and discarded fiberglass strips used in repair procedures.	Apply heat to plastic panels, using hot-air welding guns or immersion in hot water, and press the softened panels back into shape by hand.

Technology

Inventory Management Software	Analytical or Scientific Software
Data Base User Interface and Query Software	Accounting/Estimating Software
Calendar and Scheduling Software	Paint mixing systems

Certifications Students Can Earn

Credential	Ohio Graduation Points
I-Car Pro Level 1 Non-structural	12
I-Car Pro Level 1 Refinishing Technician	12
SP2 Collison Safety	N/A
CPR/First Aid	1

Possible College Credits

College Credit Plus (CCP)	The CCP program provides Ohio high school students an opportunity to complete college courses and earn transcripted credit.
Career Technical Assurance Guides (CTAGs)	CTAGs award college credit for career-technical coursework to students who complete an approved course and earn a qualifying score on the end of course exam.
Articulated Credit	Some Great Oaks career-technical programs have agreements with colleges where student can earn credit toward a specific degree.

Please speak with your school counselor, Great Oaks counselor and/or career technical instructor to learn more about these potential opportunities.

Possible Career Pathways

Painter's Assistant	Detailer
Auto Body Assistant	Automotive Welding and Frame Repair Technician
Painter	Body Shop Owner
Collision Repair Technician	Estimator