

Identifier	Poplar - Apprentice - Collision Repair Technology		Introduced	Completed
A CR 1	SAFETY			
A CR 1.1.01	General Rules	Identify potential general shop safety hazards.		
A CR 1.2.01	Fire Safety	Identify potential fire safety hazards.		
A CR 2	STRUCTURAL ANALYSIS AND DAMAGE REPAIR			
A CR 2.1.01	Frame	Attach vehicle to anchoring devices.		
A CR 2.1.02	Frame	Identify heat limitations in structural components in accordance with vehicle manufacturer's specifications/procedures.		
A CR 2.1.03	Frame	Restore structural foam in accordance with vehicle manufacturer's specifications/procedures.		
A CR 2.1.04	Frame	Discuss the extent of the direct and indirect damage and the direction of impact; discuss the methods and sequence of repair.		
A CR 2.2.01	Inspection/ Repair	Inspect the locations of all suspension, steering, and powertrain component attaching points on the vehicle.		
A CR 2.2.02	Inspection/ Repair	Discuss the extent of the direct and indirect damage and the direction of impact; plan and document the methods and sequence of repair.		
A CR 2.2.03	Inspection/ Repair	Attach anchoring devices to vehicle; remove or reposition components as necessary.		
A CR 2.2.04	Inspection/ Repair	Identify heat limitations in unibody vehicles in accordance with vehicle manufacturer's specifications/procedures.		
A CR 2.2.05	Inspection/ Repair	Identify proper cold stress relief methods.		
A CR 2.2.06	Inspection/ Repair	Repair damage using power tools and hand tools to restore proper contours and dimensions.		
A CR 2.2.07	Inspection/ Repair	Restore corrosion protection to repaired or replaced unibody structural areas.		
A CR 2.2.08	Inspection/ Repair	Store, handle, and install high-pressure gas cylinders.		
A CR 2.2.09	Inspection/ Repair	Determine work clamp (ground) location and attach.		
A CR 2.2.10	Inspection/ Repair	Protect adjacent panels, glass, vehicle interior, etc., from welding and cutting operations.		
A CR 2.2.11	Inspection/ Repair	Protect computers and other electronic control modules during welding procedures according to manufacturer's specifications.		
A CR 2.2.12	Inspection/ Repair	Determine the joint type (butt weld with backing, lap, etc.) welding made according to manufacturer's/industry specifications.		
A CR 2.3.01	Glass	Visually inspect glass for damage.		
A CR 2.3.02	Glass	Identify heating elements in glass windows.		
A CR 2.4.01	Welding/ Cutting	Recognize the weldable and non-weldable materials.		
A CR 2.4.02	Welding/ Cutting	Identify welding equipment used in auto body welding and repair.		
A CR 2.4.03	Welding/ Cutting	Identify different types of welds used in metal repair.		
A CR 3	NONSTRUCTURAL ANALYSIS AND DAMAGE REPAIR (BODY COMPONENTS)			
A CR 3.1.01	Preparation	Review damage report and analyze damage to determine appropriate methods of repair.		
A CR 3.1.02	Preparation	Protect panels, glass, and parts adjacent to the repair area.		
A CR 3.1.03	Preparation	Soap and water wash entire vehicle; use appropriate cleaner to remove contaminants from those areas to be repaired.		
A CR 3.1.04	Preparation	Apply safety procedures associated with vehicle components and systems according to manufacturer's specifications/procedures.		
A CR 3.2.01	Panels	Discuss the extent of direct and indirect damage and direction of impact; develop and document a repair plan.		
A CR 3.2.02	Panels	Replace corrosion protection.		
A CR 3.2.03	Panels	Restore sound deadeners and foam materials.		
A CR 3.3.01	Finishing/ Filling	Remove paint from the damaged area of a body panel.		
A CR 3.3.02	Finishing/ Filling	Mix body filler.		
A CR 3.4.01	Glass/ Hardware	Inspect, repair or replace, and adjust removable, manually or power operated roof panel and hinges, latches, guides, handles, retainer, and controls of sunroofs.		
A CR 3.4.02	Glass/ Hardware	Scrutinize, remove, reinstall, and align convertible top and related mechanisms.		
A CR 3.5.01	Welding/ Cutting	Store, handle, and install high-pressure gas cylinders.		
A CR 3.5.02	Welding/ Cutting	Determine work clamp (ground) location and attach.		
A CR 3.5.03	Welding/ Cutting	Protect adjacent panels, glass, vehicle interior, etc., from welding and cutting operations.		
A CR 3.5.04	Welding/ Cutting	Protect computers and other electronic control modules during welding procedures according to manufacturer's specifications.		
A CR 3.5.05	Welding/ Cutting	Determine the joint type (butt weld with backing, lap, etc.) for weld being made according to manufacturer's/industry specifications.		
A CR 3.6.01	Plastics	Identify the types of plastics; determine reparability.		
A CR 4	MECHANICAL AND ELECTRICAL COMPONENTS			
A CR 4.1.01	Suspension/ Steering	Diagnose tire pull (lead) problems; determine corrective action.		
A CR 4.1.02	Suspension/ Steering	Inspect tires, identify direction of rotation, and location; check and adjust air pressure.		
A CR 4.1.03	Suspension/ Steering	Reinstall wheels and torque lug nuts according to manufacturer's specifications.		
A CR 4.1.04	Suspension/ Steering	Examine tire wear patterns; determine repairs needed.		
A CR 4.2.01	Electrical Components	Perform battery state-of-charge test; determine needed service.		
A CR 4.2.02	Electrical Components	Inspect, clean, and replace battery.		
A CR 4.3.01	Brakes	Identify, handle, store, and install appropriate brake fluids; dispose of in accordance with federal, state, and local regulations.		
A CR 4.3.02	Brakes	Reinstall wheel and torque lug nuts according to manufacturer's specifications.		
A CR 4.3.03	Brakes	Clean and inspect caliper mountings for wear and damage.		

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A CR 4.3.04	Brakes	Check parking brake system operation.		
A CR 4.4.01	Air Conditioning	Identify, label, and store refrigerant.		
A CR 4.5.01	Cooling Systems	Identify all cooling system components.		
A CR 4.5.02	Cooling Systems	Identify proper cooling system replacement products.		
A CR 4.6.01	Drive Train	Identify powertrain mechanical and electrical components.		
A CR 4.7.01	Fuel Intake/ Exhaust	Identify the fuel-intake system.		
A CR 4.7.02	Fuel Intake/ Exhaust	Identify the exhaust system components.		
A CR 4.7.03	Fuel Intake/ Exhaust	Inspect the fuel tank and exhaust systems.		
A CR 4.8.01	Restraint Systems	Identify active, passive, and supplemental restraint systems.		
A CR 4.8.02	Restraint Systems	Examine seatbelt and shoulder harness assemblies.		
A CR 5	PAINTING AND REFINISHING PROCEDURES			
A CR 5.1.01	Health Safety Environmental	Identify and take necessary precautions with hazardous operations and materials including VOCs according to federal, state, and local regulations.		
A CR 5.1.02	Health Safety Environmental	Identify safety and personal health hazards according to OSHA guidelines and the "Right to Know Law."		
A CR 5.2.01	Surface Preparation	Soap and water wash entire vehicle; use appropriate cleaner to remove contaminants.		
A CR 5.2.02	Surface Preparation	Dry or wet sand areas to be refinished.		
A CR 5.2.03	Surface Preparation	Featheredge damaged areas to be refinished.		
A CR 5.2.04	Surface Preparation	Mask and protect other areas that will not be refinished.		
A CR 5.2.05	Surface Preparation	Clean area to be refinished using a final cleaning solution.		
A CR 5.2.06	Surface Preparation	Remove, with a tack rag, any dust or lint particles from the area to be refinished.		
A CR 5.3.01	Spraying	Inspect, clean, and determine condition of spray guns and related equipment (air hoses, regulators, air lines, air source, and spray environment).		
A CR 5.4.01	Paints	Determine type and color of paint already on vehicle by manufacturer's vehicle information label.		
A CR 5.5.01	Paint Defects	Identify preparation defects.		
A CR 5.5.02	Paint Defects	Identify and list basic painting defects.		
A CR 5.6.01	Detailing	Clean interior, exterior, and glass.		
A CR 5.6.02	Detailing	Clean body openings (door jambs and edges, etc.).		
A CR 6	ESTIMATING			
A CR 6.1.01	Damage Reports	Locate and use the information in the procedure pages.		
A CR 6.2.01	Repair Estimating	List common terms found on damage report and provide examples of each.		
A CR 6.2.02	Repair Estimating	Define the term "additional time" and identify examples.		
A CR 6.3.01	Finishing Types	Measure mil thickness.		
A CR 6.3.02	Finishing Types	Identify three automotive finishes.		
A CR 6.3.03	Finishing Types	Explain the purposes of various automotive finishes.		
A CR 6.4.01	Information	Identify locations on a vehicle that contain vital information.		
A CR 6.4.02	Information	Locate anti-theft labels on a vehicle.		
A CR 6.5.01	Reports	Review a properly prepared damage report.		
A CR 7	EMPLOYABILITY SKILLS			
A CR 7.1.01	Problem Solving	Identify the basic steps in the problem-solving process.		
A CR 7.1.02	Problem Solving	Identify alternative solutions to solve a problem.		
A CR 7.1.03	Problem Solving	Identify basic steps needed to repair the vehicle.		
A CR 7.1.04	Problem Solving	Identify the knowledge of common flow charts and its components.		
A CR 7.1.05	Problem Solving	Utilize computers and other forms of information used to access data to solve problems.		
A CR 7.2.01	Critical Thinking	Identify the importance of thinking skills in analyzing and offering solutions to repair issues.		
A CR 7.2.02	Critical Thinking	Identify the essential steps of critical thinking.		
A CR 7.2.03	Critical Thinking	Identify the basic components of an action plan.		
A CR 7.3.01	Speak, Write, Listen	Demonstrate proper telephone etiquette.		
A CR 7.3.02	Speak, Write, Listen	Demonstrate active listening skills.		
A CR 7.3.03	Speak, Write, Listen	Select and utilize an appropriate medium for conveying messages with dignity and respect.		
A CR 7.3.04	Speak, Write, Listen	Demonstrate sensitivity to cultural diversity in communication.		
A CR 7.4.01	Technology	Demonstrate ability to utilize basic keyboarding techniques.		
A CR 7.4.02	Technology	Identify and demonstrate the appropriate use of technology to enhance the efficiency of the workplace and school.		
A CR 7.4.03	Technology	Recognize the impact of essential technological changes on the auto collision repair industry as reported in current literature.		
A CR 7.4.04	Technology	Identify appropriate technology for repairing automotive systems.		
A CR 7.5.01	Leadership and Teamwork	Demonstrate respect for team members, team processes and team goals.		
A CR 7.5.02	Leadership and Teamwork	Describe the importance of company dress codes.		
A CR 7.5.03	Leadership and Teamwork	Establish credibility through competence and integrity.		
A CR 7.6.01	Ethics	List the important ethics in the workplace.		
A CR 7.6.02	Ethics	Meet attendance standards.		
A CR 7.6.03	Ethics	Comply with all safety and health rules and procedures.		
A CR 7.6.04	Ethics	Identify hazardous substances in the workplace.		
A CR 7.6.05	Ethics	Describe an organized workplace.		

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A CR 7.6.06	Ethics	Gain an understanding and follow emergency procedures.		
A CR 7.6.07	Ethics	Identify appropriate responses to unethical actions.		
A CR 7.7.01	Workplace	List effective time management skills.		
A CR 7.7.02	Workplace	Use technology to complete assignments.		
A CR 7.7.03	Workplace	Utilize materials, tools, and processes to complete a task related to a career selection.		
A CR 7.7.04	Workplace	Read and follow instructions from manuals on the use and care of materials, tools, and equipment.		
A CR 7.7.05	Workplace	Maintain a clean, organized, and safe job site.		
A CR 7.7.06	Workplace	Identify traits needed for cooperation and leadership in a team at school or in a workplace.		
A CR 7.7.07	Workplace	Identify the material resources and space requirements needed to complete an assignment.		
A CR 7.8.01	Career	Locate employment opportunities.		
A CR 7.8.02	Career	Identify job requirements for entry-level positions in the collision repair industry.		
A CR 7.8.03	Career	Identify general conditions for employment.		
A CR 7.8.04	Career	Identify educational/training requirements for related collision repair field.		
A CR 7.8.05	Career	Identify the elements of goal setting.		
A CR 7.8.06	Career	Identify automotive related careers.		
A CR 7.8.07	Career	Describe essential job interview skills.		
A CR 7.8.08	Career	Identify the components of a career portfolio.		
A CR 7.9.01	Retention	Describe the importance of a portfolio.		
A CR 7.9.02	Retention	Identify options for lifelong learning.		
A CR 7.9.03	Retention	Identify interpersonal skills needed for job retention.		
A CR 7.9.04	Retention	Identify jobs with opportunity for advancement.		
A CR 7.9.05	Retention	Describe the importance of career planning.		