Curriculum Map
AUT 156-157
Maintenance and Light Repair Section D

School:	**Central ATC**	**Program:**	**Automotive Technology**
Teacher:	**William Bennett**	**School Year:**	**201__-201___**
KCTCS Course Number:	**ADX 120-121**	**KY Tech Course Name**	**Maintenance and Light Repair Section D**
Length of Course:	Year Long	**Length of Period**	50 Min Period 6
High School Credit(s)	**1**		

Automotive Maintenance and Light Repair Section D:

Required Supplemental Tasks

Date Completed	Days	Task	Description	Common Core/Skills Standards
8-5-2011	1,2	1	Identify general shop safety rules and procedures.	Skills Standards: EB 001 EB 002 EB 003 EB 004 EB 005 EB 006 EB 007 Common Core Technical Standards: TD-HSE-1 TD-HSE-2 New Common Core Standards: RST 11-12 3
8-18-2011	3,4	2	Utilize safe procedures for handling of tools and equipment. PowerPoint from Text Vendor for this content	Skills Standards: OC 002 OC 003 OC 010 OC 011 Common Core Technical Standards: TD-HSE-1 New Common Core Standards: RST 11-12 3

8-11-2011	5	3	Identify and use proper placement of floor jacks and jack stands.	Skills Standards: OC 002 OC 003 OC 010 OC 011 Common Core Technical Standards: TD-HSE-1 New Common Core Standards: RST 11-12 3 New Generation Science Standards: HS-PS2-1. HS-PS3-3.
8-12-2011	6	4	Identify and use proper procedures for safe lift operation.	Skills Standards: OC 002 OC 003 OC 010 OC 011 Common Core Technical Standards: TD-HSE-1 New Common Core Standards: RST 11-12 3 New Generation Science Standards: HS-PS2-1. HS-PS3-3.
8-13-2011	7	5	Utilize proper ventilation procedures for working within the lab/shop area.	Skills Standards: OC 002 OC 003 OC 010 OC 011 Common Core Technical Standards: TD-HSE-1 New Common Core Standards:

				RST 11-12 3
8-13-201	7	6	Identify marked safety areas.	Skills Standards: OC 018 OC 023 Common Core Technical Standards: TD-HSE-1 TD-HSE-2 New Common Core Standards: RST 11-12 3
8-17-201	8, 9	7	Identify the location and the types of fire extinguishers and other fire safety equipment; demonstrate knowledge of the procedures for using fire extinguishers and other fire safety equipment. Internet research project	Skills Standards: OC 018 OC 023 Common Core Technical Standards: TD-HSE-1 TD-HSE-2 New Common Core Standards: RST 11-12 3
8-18-201	9	8	Identify the location and use of eye wash stations.	Skills Standards: OC 002 OC 003 OC 010 OC 011 Common Core Technical Standards: TD-HSE-1 TD-HSE-2 New Common Core Standards: RST 11-12 3
8-15-201	9	9	Identify the location of the posted evacuation routes.	Skills Standards: OC 018 OC 023

				Common Core Technical Standards: TD-HSE-1 TD-HSE-2 New Common Core Standards: RST 11-12 3
8-30-2011	10	10	Comply with the required use of safety glasses, ear protection, gloves, and shoes during lab/shop activities. PowerPoint Assignment	Skills Standards: OC 002 OC 003 OC 010 OC 011 Common Core Technical Standards: TD-HSE-1 TD-HSE-2 New Common Core Standards: RST 11-12 3
8-30-2011	10	11	Identify and wear appropriate clothing for lab/shop activities.	Skills Standards: OC 002 OC 003 OC 010 OC 011 Common Core Technical Standards: TD-HSE-1 TD-HSE-2 New Common Core Standards: RST 11-12 3
8-30-2011	10	12	Secure hair and jewelry for lab/shop activities.	Skills Standards: OC 010 OC 011 Common Core Technical Standards: TD-HSE-1 TD-HSE-2

A-21-201	11-14	13	Demonstrate awareness of the safety aspects of supplemental restraint systems (SRS), electronic brake control systems, and hybrid vehicle high voltage circuits. PowerPoint from Text Vendor for this content	Skills Standards: OC 002 OC 003 OC 010 OC 011 Common Core Technical Standards: TD-HSE-1 TD-HSE-2 New Common Core Standards: RST 11-12 3 New Generation Science Standards: HS-PS2-5. HS-PS3-3.
A-26-201	15-17	14	Demonstrate awareness of the safety aspects of high voltage circuits (such as high intensity discharge (HID) lamps, ignition systems, injection systems, etc.).	Skills Standards: OC 002 OC 003 OC 010 OC 011 Common Core Technical Standards: TD-HSE-1 TD-HSE-2 New Common Core Standards: RST 11-12 3 New Generation Science Standards: HS-PS2-5. HS-PS3-3.
A-27-201	18	15	Locate and demonstrate knowledge of material safety data sheets (MSDS).	Skills Standards: OC 002 OC 003 OC 010 OC 011 Common Core Technical Standards: TD-HSE-1

				TD-HSE-2 New Common Core Standards: RST 11-12 3
9-3-201_	19-25	16	Identify tools and their usage in automotive applications. PowerPoint from Text Vendor for this content	Skills Standards: OC 002 OC 003 OC 010 OC 011 Common Core Technical Standards: TD-HSE-1 TD-HSE-2 New Common Core Standards: RST 11-12 3
9-4-201_	26	17	Identify standard and metric designation.	Skills Standards: OB 002 OB 003 OB 004 Common Core Technical Standards: TD-HSE-1 TD-HSE-2 New Common Core Standards: RST 11-12 3 N-Q.1 A-CED-4
9-10-201_	27-30	18	Demonstrate safe handling and use of appropriate tools.	Skills Standards: OC 002 OC 003 OC 010 OC 011 Common Core Technical Standards: TD-HSE-1 TD-HSE-2

				New Common Core Standards: RST 11-12 3
9-17-2012	31-33	19	Demonstrate proper cleaning, storage, and maintenance of tools and equipment.	Skills Standards: OC 010 OC 011 Common Core Technical Standards: TD-HSE-1 TD-HSE-2 New Common Core Standards: RST 11-12 3
9-25-2012	34-37	20	Demonstrate proper use of precision measuring tools (i.e. micrometer, dial-indicator, dial-caliper).	Skills Standards: OB 002 OB 003 OB 004 Common Core Technical Standards: TD-HSE-1 TD-HSE-2 New Common Core Standards: RST 11-12 3 N-Q.1
9-28-2012	38	21	Identify information needed and the service requested on a repair order. Student spreadsheet assignment	Skills Standards: OD 001 OD 002 OD 003 OD 004 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12.2
9-28-2012	38	22	Identify purpose and demonstrate proper use of fender covers, mats.	Skills Standards: OC 002 OC 003 OC 010 OC 011 Common Core Technical Standards: TD-OPS.3

				New Common Core Standards: RST 11-12 3
9-29-201_	39	23	Demonstrate use of the three C's (concern, cause, and correction).	Skills Standards: OD 001 OD 002 OD 003 OD 004 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12.2
10-2-201_	40-41	24	Review vehicle service history.	Skills Standards: OD 001 OD 002 OD 003 OD 004 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12.2
10-6-201_	42-43	25	Complete work order to include customer information, vehicle identifying information, customer concern, related service history, cause, and correction.	Skills Standards: OD 001 OD 002 OD 003 OD 004 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12.2
10-7-201_	44	26	Ensure vehicle is prepared to return to customer per school/company policy (floor mats, steering wheel cover, etc.).	Skills Standards: OC 002 OC 003 OC 010

				OC 011 Common Core Technical Standards: TD-OPS.3 New Common Core Standards: RST 11-12 3

			ELECTRICAL/ELECTRONIC SYSTEMS	
			Starting System	
10-9-2012	45-46	28	Perform starter current draw test; determine necessary action. PowerPoint from Text Vendor for this content	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 OL 002 Common Core Technical Standards: TD-SYS-2 New Common Core Standards:

				RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1 New Generation Science Standards: HS-PS2-5. HS-PS3-3. New Generation Science Standards: HS-PS2-5. HS-PS3-3. HS-PS3-5.
10-14-2021	47-49	29	Perform starter circuit voltage drop tests; determine necessary action. Students use Today's Classroom	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 OL 002 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3

				RST 11-12 4 N-Q-3 N-Q.1 New Generation Science Standards: HS-PS2-5. HS-PS3-3. HS-PS3-5.
	51-52	30	Inspect and test starter relays and solenoids; determine necessary action.	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 OL 002 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1 New Generation Science Standards: HS-PS2-5. HS-PS3-3. HS-PS3-5.
	53-57	31	Remove and install starter in a vehicle.	Skills Standards: OH 001 OH 002 OH 003 OD 002

				OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4
	58-60	32	Inspect and test switches, connectors, and wires of starter control circuits; determine necessary action. Students use Today's Classroom	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 OL 002 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1 New Generation Science Standards: HS-PS2-5. HS-PS3-3. HS-PS3-5.
			Charging System	
	62-67	33	Perform charging system output test; determine necessary action.	Skills Standards: OH 001 OH 002 OH 003

				OD 002 OD 003 OD 005 OL 002 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1 New Generation Science Standards: HS-PS2-5. HS-PS3-3. HS-PS3-5.
	68-72	34	Inspect, adjust, or replace generator (alternator) drive belts; check pulleys and tensioners for wear; check pulley and belt alignment. Use Identifix	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 New Generation Science Standards: HS-PS2-5. HS-PS3-3. HS-PS3-5.
	73-76	35	Remove, inspect, and re-install generator (alternator).	Skills Standards: OH 001

				OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4
	77-78	36	Perform charging circuit voltage drop tests; determine necessary action. Use Today's Classroom	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 OL 002 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1 A-CED-4 New Generation Science Standards: HS-PS2-5. HS-PS3-3. HS-PS3-5.

			Lighting Systems	
	79-80	37	Inspect interior and exterior lamps and sockets including headlights and auxiliary lights (fog lights/driving lights); replace as needed.	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4
	81	38	Aim headlights.	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4

	82-85	39	Identify system voltage and safety precautions associated with high-intensity discharge headlights	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 TD-HSE-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1 New Generation Science Standards: HS-PS2-5. HS-PS3-3. HS-PS3-5.
			Accessories	
	86-89	40	Disable and enable airbag system for vehicle service; verify indicator lamp operation.	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 TD-HSE-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3

				N-Q.1 New Generation Science Standards: HS-PS2-5. HS-PS3-3. HS-PS3-5.
	90-91	41	Remove and reinstall door panel.	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4
	92-97	42	Describe the operation of keyless entry/remote-start systems. Writing assignment	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1
	98-99	44	Verify operation of instrument panel gauges and warning/indicator lights; reset maintenance indicators.	Skills Standards: OH 001 OH 002 OH 003 OD 002

				OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1 New Generation Science Standards: HS-PS2-5. HS-PS3-3. HS-PS3-5.
	101- 102	45	Verify windshield wiper and washer operation; replace wiper blades.	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 New Generation Science Standards: HS-PS2-5. HS-PS3-3. HS-PS3-5.
			HEATING AND AIR CONDITIONING	
			General	
	103-	46	Research applicable vehicle and service information,	Skills Standards:

	104		vehicle service history, service precautions, and technical service bulletins.	AB 1 AB 2 AB 3 AB 4 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1
			Refrigeration System Components	
	105-107	47	Inspect and replace A/C compressor drive belts, pulleys, and tensioners; determine necessary action Use Identifix	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1
	108-110	48	Identify hybrid vehicle A/C system electrical circuits and the service/safety precautions.	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 OL 002 Common Core Technical Standards: TD-SYS-2

				TD-HSE-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1 New Generation Science Standards: HS-PS2-5. HS-PS3-3. HS-PS3-5.
	111-114	49	Inspect A/C condenser for airflow restrictions; determine necessary action. Use Identifix	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1
			Heating, Ventilation, and Engine Cooling Systems	
	115-118	50	Inspect engine cooling and heater systems hoses; perform necessary action.	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005

				Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1
			Operating Systems and Related Controls	
	119-121	51	Inspect A/C-heater ducts, doors, hoses, cabin filters, and outlets; perform necessary action. PowerPoint from Text Vendor for this content	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1
	122-123	52	Identify the source of A/C system odors.	Skills Standards: OH 001 OH 002 OH 003

				OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4
			ENGINE PERFORMANCE	
			General	
	124-127	53	Research applicable vehicle and service information, vehicle service history, service precautions, and technical service bulletins. Student spreadsheet assignment	Skills Standards: AB 1 AB 2 AB 3 AB 4 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1
	128-11	54	Perform engine absolute (vacuum/boost) manifold pressure tests; determine necessary action	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 TD-HSE-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3

				N-Q.1 New Generation Science Standards: HS-PS2-1. HS-PS3-3.
	132-135	55	Perform cylinder power balance test; determine necessary action. Student uses Today's Classroom	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1 New Generation Science Standards: HS-PS2-1. HS-PS3-3.
	136-139	56	Perform cylinder cranking and running compression tests; determine necessary action.	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3

				RST 11-12 4 N-Q-3 N-Q.1 New Generation Science Standards: HS-PS2-1. HS-PS3-3.
	140-143	57	Perform cylinder leakage test; determine necessary action. PowerPoint from Text Vendor for this content	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1 New Generation Science Standards: HS-PS2-1. HS-PS3-3.
	144	58	Verify engine operating temperature.	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards:

				RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1
	145-147	59	Remove and replace spark plugs; inspect secondary ignition components for wear and damage.	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1 New Generation Science Standards: HS-PS2-5. HS-PS3-3. HS-PS3-5.
			Computerized Engine Controls	
	148-149	60	Retrieve and record diagnostic trouble codes, OBD monitor status, and freeze frame data; clear codes when applicable.	Skills Standards: OH 001 OH 002 OH 003 OD 002

			Student use scanner	OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1
	150-152	61	Describe the importance of operating all OBDII monitors for repair verification.	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4 N-Q-3 N-Q.1 New Generation Science Standards: HS-PS2-5. HS-PS3-3. HS-PS3-5.
			Fuel, Air Induction, and Exhaust Systems	
	153	62	Replace fuel filter(s).	Skills Standards: OH 001

				OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4
	154-156	63	Inspect, service, or replace air filters, filter housings, and intake duct work.	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4
	157-159	64	Inspect integrity of the exhaust manifold, exhaust pipes, muffler(s), catalytic converter(s), resonator(s), tail pipe(s), and heat shields; determine necessary action. Use Identifix	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4

	160-162	65	Inspect condition of exhaust system hangers, brackets, clamps, and heat shields; repair or replace as needed.	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4
	163	66	Check and refill diesel exhaust fluid (DEF).	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4
			Emissions Control Systems	
	164-165	67	Inspect, test, and service positive crankcase ventilation (PCV) filter/breather cap, valve, tubes, orifices, and hoses; perform necessary action.	Skills Standards: OH 001 OH 002 OH 003 OD 002 OD 003 OD 005 Common Core Technical Standards: TD-SYS-2 New Common Core Standards: RST 11-12 3 RST 11-12 4

			EMPLOYABILITY SKILLS	
			Reports to work daily on time; able to take directions and motivated to accomplish the task at hand. Student internet research project	Skill Standards: EF 001 EF 005 EF 010
			Dresses appropriately and uses language and manners suitable for the workplace.	Skills Standards: EF 003 EF 004
			Maintains appropriate personal hygiene	Skills Standards: EF 003 EF 004
			Meets and maintains employment eligibility criteria, such as drug/alcohol-free status, clean driving record, etc.	Skills Standards: EE 003 EB 003 EF 019
			Demonstrates honesty, integrity and reliability	Skills Standards: ED 001 ED 004 EF 001
			Complies with workplace policies/laws	Skill Standards: EF 010 EB 001 EF 018

			Contributes to the success of the team, assists others and requests help when needed.	Skills Standards: EA 005 EA 011 EC 002
			Works well with all customers and coworkers.	Skills Standards: EE 001 EF 019 EF 016
			Negotiates solutions to interpersonal and workplace conflicts.	Skills Standards: EC 001 EC 002 EC 003 EA 013
			Contributes ideas and initiative	Skills Standards: EC 002 EC 003
			Follows directions	Skills Standards: EF 010 EF 012 EF 013
			Communicates (written and verbal) effectively with customers and coworkers.	Skills Standards: EA 008 EA 006 EA 013 EA 007
			Reads and interprets workplace documents; writes clearly and concisely.	Skills Standards: EA 003 EA 001

				EA 006
			Analyzes and resolves problems that arise in completing assigned tasks.	Skills Standards: EC 001 EC 002 EC 003
			Organizes and implements a productive plan of work.	Skills Standards: ED 001 ED 002 OD 003 OD 004 OD 005
			Uses scientific, technical, engineering and mathematics principles and reasoning to accomplish assigned tasks	Skills Standards: OB 001 OB 002 OB 003 OB 004
			Identifies and address the needs of all customers, providing helpful, courteous and knowledgeable service and advice as needed.	Skills Standards: ED 001 ED 002 ED 003 ED 005 ED 006