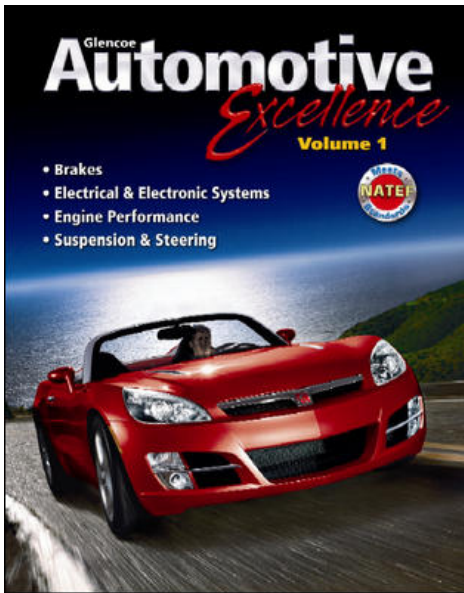


Automotive Engine Performance I



Glencoe
Automotive Excellence

Volume 1

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CORRELATION TO ALABAMA
COURSE OF STUDY

STANDARDS		PAGE REFERENCES
Automotive Engine Performance I		
Safety		
Students will:		
1.	Demonstrate personal and environmental safety practices associated with clothing, eye protection, hand tools, power equipment, and proper ventilation related to basic automotive engine performance.	Student Edition: HB 85, 89-93, 94-97, 98-103; EP 498-501 <i>Hybrid Technology</i> HB 104 <i>Safety First</i> HB 89, 90; EP 372, 373, 380, 382, 449, 454, 495, 500
General Engine Diagnostics		
2.	Diagnose general automotive engine system problems. <ul style="list-style-type: none"> Utilizing work order procedures for automotive engine repairs 	Student Edition: HB 44; EP 371-379, 380-385 Automotive engine diagnostics and repairs are covered in more detail in Vol. 2 of <i>Automotive Excellence</i> .

STANDARDS		PAGE REFERENCES
3.	<p>Identify general engine system concerns.</p> <ul style="list-style-type: none"> Determining necessary action for automotive engine system concerns Researching automotive vehicle and service information <p>Examples: vehicle service history, technical service bulletins, vehicle and major component identification numbers</p> <ul style="list-style-type: none"> Determining testing and evaluation procedures 	<p>Student Edition: HB 44; EP 364-367, 371-379, 380-385, 410-411 <i>Excellence in Communication</i> SS 528, 592 <i>Excellence in Math</i> EP 374</p> <p>Automotive engine diagnostics and repairs are covered in more detail in Vol. 2 of <i>Automotive Excellence</i>.</p>
Computerized Engine Control Diagnosis and Repair		
4.	<p>Interpret trouble codes in On-Board Diagnostics I (OBD I) and On-Board Diagnostics II (OBD II) systems.</p>	<p>Student Edition: EP 407-411, 471-474, 475-483, 489-491, 495-497</p>
5.	<p>Diagnose computerized engine controls to determine repairs needed.</p> <ul style="list-style-type: none"> Interpreting digital volt ohm meter (DVOM) readings for computerized engine control Utilizing electronic service equipment for computerized engine control Interpreting vehicle and major component identification numbers Testing power, ground circuits, and connections for computerized engine control Handling static sensitive devices 	<p>Student Edition: HB 44; EL 231-233, 240-241, 243-245, 249; EP 389-401, 410-411, 462-467 <i>Excellence in Communication</i> SS 528 <i>Excellence in Science</i> EL 244; EP 409 <i>Safety First</i> EP 408 <i>Tech Tip</i> EP 394, 410, 411</p>
Ignition System Diagnosis and Repair		
6.	<p>Inspect ignition system components and circuits for computerized engine control.</p> <ul style="list-style-type: none"> Testing ignition system components Repairing ignition system components 	<p>Student Edition: EP 418-428, 429-433 <i>Safety First</i> EP 426 <i>Tech Tip</i> EP 428, 430</p>
Fuel, Air Induction, and Exhaust System Diagnosis and Repair		
7.	<p>Demonstrate fuel, air induction, and exhaust systems diagnoses.</p>	<p>Student Edition: EP 366-367, 377-378, 437-441, 443-445, 456-467, 500-501 <i>Excellence in Math</i> EP 438 <i>Tech Tip</i> EP 445, 452, 457, 458</p>

STANDARDS		PAGE REFERENCES
Emission Control System Diagnosis and Repair		
8.	Diagnose positive crankcase ventilation systems to determine repair.	Student Edition: EP 488-489 <i>Tech Tip</i> EP 488, 489
9.	Evaluate exhaust gas recirculation and treatment systems to determine repair.	Student Edition: EP 489-492 <i>Safety First</i> EP 491 <i>Tech Tip</i> EP 492
10.	Diagnose evaporative emissions control systems to determine repair.	Student Edition: EP 480, 495-497
Engine-Related Service		
11.	Explain automotive engine-related services. Examples: adjusting valves, replacing timing belt	Student Edition: EP 362, 372-379, 380-385, 418-428, 430-433, 438-439, 457-467, 488-495, 500-501 More detailed information on engine-related diagnosis and repair may be found in Vol. 2 of <i>Automotive Excellence</i> .