



<b>Goodheart-Willcox Publisher Correlation of Energy, Power, and Transportation Technology ©2012 to Texas Essential Knowledge and Skills (TEKS) §130.393 Energy, Power, and Transportation Systems</b>	
<b>Standard</b>	<b>Correlating Pages</b>
(1) The student knows the employability characteristics that lead to success. The student is expected to:	
(A) demonstrate the principles of group participation and leadership related to citizenship and career preparation;	61, 352, 412
(B) identify employers' expectations and appropriate work habits;	29, 42, 61, 89, 112, 132, 152, 160, 163, 214, 223, 229, 256, 294, 316, 347, 363, 382, 397, 435, 465, 493, 513, 542, 554, 577, 605, 614, 632
(C) identify career development and entrepreneurship opportunities in the energy, power, and transportation systems, including how to search for and obtain employment and what qualifications are required for varying career fields;	29, 42, 51, 61, 89, 112, 132, 152, 163, 214, 229, 256, 294, 316, 347, 363, 382, 397, 435, 465, 493, 500, 513, 542, 554, 577, 605, 614, 632
(D) identify employment opportunities, including entrepreneurship, and certification requirements for the field of energy, power, and transportation systems;	29, 42, 51, 54, 61, 89, 112, 132, 152, 163, 214, 229, 256, 294, 316, 347, 363, 382, 397, 435, 465, 493, 500, 513, 542, 554, 577, 605, 614, 632
(E) discuss certification opportunities to meet state academic standards and qualifications for employment in selected fields of study;	294, 347, 382, 397, 513, 614, 632
(F) apply ethical reasoning to a variety of workplace scenarios in order to make ethical decisions;	223
(G) apply competencies related to resources, information, systems, and technology;	27, 31–36, 49, 65, 78, 105, 138, 145, 172, 204, 249, 262, 282, 315, 322, 360, 374, 389, 430, 470, 494, 512, 546, 559, 589, 600, 620, 630
(H) identify opportunities for leadership development and personal growth;	61, 412
(I) describe team dynamics; and	294, 352
(J) demonstrate effective oral and written communication skills with individuals from varied cultures.	200, 376, 607



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(2) The student knows the functions and applications of the tools, equipment, technologies, and materials used in energy, power, and transportation systems. The student is expected to:	
(A) discuss the safe use of hand and power tools and equipment commonly used in the maintenance and repair of engines; and	338–347
(B) discuss the use of audits and inspections to maintain compliance with safety, health, and environmental regulations.	380, 608, 614, 638
(3) The student applies technical knowledge and skills to simulated situations. The student is expected to:	
(A) identify the major components in a vehicular system;	369–382, 413–456, 479–496, 519–545, 571–594
(B) identify necessary maintenance and service of vehicle systems; and	382, 455–456, 543–545
(C) discuss preventative maintenance plans and systems to keep vehicular systems in operation.	455–456, 543–545
(4) The student describes the historical, current, and future significance of the energy, power, and transportation systems. The student is expected to:	
(A) identify the scope and effect upon society of the energy, power, and transportation systems; and	25, 44–50, 611–622
(B) identify potential future scenarios for the energy, power, and transportation systems.	625–642
(5) The student uses academic skills to document the requirements of energy, power, and transportation systems. The student is expected to:	
(A) demonstrate communication skills in relation to customers, technicians, and others;	200, 316, 363
(B) prepare documentation such as quotes, invoices, bills of lading, work orders, and other reports;	74, 320, 351, 607, 344



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(C) read and interpret appropriate documents such as schematics, charts, diagrams, graphs, parts catalogs, and service-repair manuals and bulletins;	167, 270–274, 291–294
(D) perform precision measurements to diagnose component shape and alignment, based on industry specifications, and determine necessary repair;	334–335
(E) use critical-thinking skills and structured problem-solving skills to diagnose vehicular system malfunctions, solve problems, and make decisions; and	348, 382, 632
(F) demonstrate knowledge of regulations that govern the construction, maintenance, and service of energy, power, and transportation systems.	86–89, 115–117, 348, 401, 621–622