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GEORGIA DEPARTMENT OF EDUCATION 2011 LEARNING RESOURCES RECOMMENDATION PROCESS GRADES 6-12 CAREER, TECHNICAL AND AGRICULTURAL EDUCATION (CTAE)

INSTRUCTIONAL MATERIAL CORRELATION

Course: Technological Systems (21.02300) Text: *Technology: Engineering Our World* ©2012



FORMAT FOR CORRELATION TO THE GEORGIA PERFORMANCE STANDARDS

Subject Area:	Career, Technical & Agricultural Education	State-Funded Course: 21.02300 Technological Systems,

Grade 8

Textbook Title: <u>Technology: Engineering Our World</u>

Publisher: Goodheart-Willcox Publisher

The Georgia Performance Standards for Grades 6-12 Career, Technical and Agricultural Education (CTAE) may be accessed on-line at: <u>http://www.georgiastandards.org/</u>.

Standard	Standard	Where Taught
(Cite Number)	(Cite specific standard)	(If print component, cite page number; if non-print, cite appropriate location.)
MSENGR-TS-1	Students will develop an understanding of	
	the Universal Systems Model.	
a.	Define Universal Systems Model.	212–217, 290, 329–330
b.	Identify the components of a system.	212–217, 290, 329–330, 402, 416–417, 427
с.	Examine a variety of simple, common	18, 212–217, 402–404, 416–417, 427
	systems.	
MSENGR-TS-2	Students will develop an understanding of	
	how the design process is used to develop a	
	technological system.	
a.	Identify the steps of the design process.	33–42, 190, 299
b.	Identify how systems are used in a variety of	214–220, 289–293, 329–330, 402–404, 463–470
	settings.	
с.	Illustrate how the systems model is utilized in	452–457, 463–469, 475
	the production of goods.	
d.	Construct and work with a variety of systems,	223, 334, 367, 428, 449, 475, 497
	including Engineering, Electronics,	
	Manufacturing, and Energy.	
MSENGR-TS-3	Students will develop an understanding of	
	how humans interact with systems.	
a.	Operate technological systems.	299, 334, 449, 497
b.	Maintain technological systems.	298, 449, 497
с.	Constructing technological systems.	299, 334, 367, 449, 497, 498
d.	Design technological systems.	299, 334, 367, 399, 428, 449, 475, 497, 498
MSENGR-TS-4	Students will develop an understanding of	
	how systems evolve from one stage to	

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	another.	
a.	Illustrate the evolution of a variety of	21, 23, 29, 90, 261, 427, 441–442, 456–457, 460, 528–529
	technological systems.	
b.	Analyze the reason for the evolution of	21, 23, 90, 261, 332, 333
	technological systems.	
с.	Investigate the cause of system failures.	43, 213, 397, 454, 461
MSENGR-TS-5	Students will recognize and be able to	
	forecast trends in the development of	
	technological systems.	
a.	Gathers data and examine trends that lead to	90, 218–220, 223, 261, 333, 527
	technological advancement.	
b.	Propose a creative and futuristic technological	29, 474, 475
	system that may solve emerging human needs.	
с.	Design and create a model of a futuristic	
	technological system.	
d.	Analyze the qualities of various futuristic	29, 443–445, 474, 475
	technological systems (i.e. benefits,	
	drawbacks, overall efficiency of system, etc.).	
MSENGR-TS-6	Students will recognize relationships	
	among technologies and assess the impact	
	of integrated systems.	
a.	Identify a complex technological system that	215, 289, 290, 422–424
	is made up of several subsystems.	
b.	Explain how the subsystems work together to	215, 289, 290
	enable the complex system.	
с.	Analyze the qualities of various integrated	223, 261
	technological systems (i.e. benefits,	
	drawbacks, overall efficiency of system, etc.).	

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MSENGR-TS-7	Students will develop leadership skills and	
	work ethics.	
a.	Demonstrate work ethics within the classroom	508–509
	and lab environment.	
b.	Investigate leadership skills through co-	510, 527
	curricular activities (i.e. TSA, First Lego	
	League, BEST Robotics, First Vex Challenge,	
	etc.).	