

**Communication Systems – Grade Levels 9-12
TEKS Manager**

Credit: 1/2

Place a check (✓) in each column to show TEKS taught.

	TEKS	1 st 6 wks	2 nd 6 wks	3 rd 6 wks
	(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.			
(c) Knowledge and skills. (1) The student describes how a systems model relates to communication activities. The student is expected to:	(A) apply the universal systems model to communication activities;			
	(B) identify the inputs, processes, outputs, and feedback associated with communications systems; and			
	(C) describe how technological systems interact to achieve common goals.			

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(2) The student selects and uses the proper communication technology to meet practical objectives. The student is expected to:	(A) apply communication technology to individual or community problems;			
	(B) describe the factors that affect the use and interpretation of communication products and services;			
	(C) identify and describe the roles of communication in business and industry, such as informing, persuading, and educating; and			
	(D) distinguish between photographic, digital graphic, printed graphic, technical graphic, audio, and video communication systems.			
(3) The student designs communication products using appropriate communication design processes and techniques. The student is expected to:	(A) describe the design processes and techniques used in communication technology;			
	(B) develop or improve communication products that meet specified needs; and			
	(C) identify areas where quality can be designed into communication products, services, or systems.			
(4) The student investigates emerging and innovative communication technologies. The student is expected to:	(A) report on emerging and innovative communication technologies; and			
	(B) conduct research and experimentation in communication technology.			
(5) The student describes quality and how it is measured in communications. The student is expected to:	(A) describe and apply different quality control applications; and			
	(B) apply continuous quality improvement techniques to the production of communication products and services.			

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(6) The student produces communication items using the appropriate tools, equipment, machines, materials and technical processes. The student is expected to:	(A) describe the chemical and physical properties of communication materials;			
	(B) describe the processes used in photographic, digital graphic, printed graphic, technical graphic, audio, and video communication systems;			
	(C) use a variety of tools, equipment, machines, and materials to produce communication products and services; and			
	(D) produce communication items.			
(7) The student works safely with communication tools, equipment, machines, and materials. The student is expected to:	(A) master relevant safety tests;			
	(B) follow safety manuals, instructions, and requirements;			
	(C) identify and classify hazardous materials and wastes; and			
	(D) dispose of hazardous materials and wastes appropriately.			
(8) The student describes the importance of maintenance in communications. The student is expected to:	(A) handle and store tools and materials correctly;			
	(B) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines; and			
	(C) describe the results of negligent or improper maintenance.			
(9) The student manages a communication technology project. The student is expected to:	(A) develop a plan for completing a communication technology project; and			
	(B) participate in the organization and operation of a real or simulated communication project.			

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(10) The student applies the appropriate codes, laws, standards, or regulations related to communication technology, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), standard symbols, and line weights. The student is expected to:	(A) describe the importance of codes, laws, standards, or regulations;			
	(B) identify areas where codes, laws, standards, or regulations may be required; and			
	(C) follow the appropriate codes, laws, standards, or regulations.			
(11) The student describes the intended and unintended effects of technological solutions. The student is expected to:	(A) use an assessment strategy to determine the risks and benefits of technological solutions;			
	(B) describe how technology has affected individuals societies, cultures, economies, and environments; and			
	(C) discuss the international effects of communication technology.			
(12) The student identifies the factors that influence the evolution of communication technology. The student is expected to:	(A) describe how changes in communication technology affect business and industry;			
	(B) describe how the development and use of communication technology are influenced by past events;			
	(C) describe change and the factors that affect the adoption or rejection of communication technology; and			
	(D) describe how and why technology evolves.			
(13) The student solves problems, thinks critically, and makes decisions related to communications. The student is expected to:	(A) develop or improve a product by following a problem-solving strategy;			
	(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and			
	(C) apply decision-making techniques to the selection of technological solutions.			

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(14) The student identifies the factors that influence the cost of producing communication goods and services. The student is expected to:	(A) develop a budget for a communication product or project;			
	(B) determine the most effective strategies to minimize costs;			
	(C) identify the financial factors associated with starting and operating communication enterprises; and			
	(D) explain the role of business in a free enterprise system.			
(15) The student applies communication, mathematics, and science knowledge and skills to communication activities. The student is expected to:	(A) use audio and visual communication techniques consistent with industry standards;			
	(B) use mathematics concepts in communication technology;			
	(C) identify and apply science principles used in communication technology; and			
	(D) use the appropriate units of measure.			
(16) The student describes basic product and service marketing processes and techniques. The student is expected to:	(A) prepare a marketing plan for a(n) idea, product, or service; and			
	(B) discuss the effect of customer satisfaction on the image of a product or company.			
(17) The student investigates career opportunities, requirements, and expectations in communication technology. The student is expected to:	(A) identify an area of interest in communication and investigate its entry level and advancement requirements and its growth potential; and			
	(B) describe the careers available in communication technology.			

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(18) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:	(A) describe how teams function;			
	(B) use teamwork to solve problems;			
	(C) distinguish between the roles of team leaders and team members;			
	(D) identify characteristics of good leaders;			
	(E) identify employers' expectations and appropriate work habits;			
	(F) define discrimination, harassment, and equality;			
	(G) use time management techniques to develop and maintain work schedules and meet deadlines; and			
	(H) complete his/her work according to established criteria.			