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| **TEXAS CTE LESSON PLAN**[www.txcte.org](http://www.txcte.org) |
| **Lesson Identification and TEKS Addressed** |
| **Career Cluster** | Law, Public Safety, Corrections, and Security |
| **Course Name** | Principles of LPSCS |
| **Lesson/Unit Title** | Fire Department Communications |
| **TEKS Student Expectations** | **130.332. (c) Knowledge and Skills**(13) The student identifies the roles and functions of fire protection services. (C) The student is expected to recognize the importance of the operation of 911 and computer-aided dispatch systems(D) The student is expected to explain the relationships among police, fire, and emergency medical services |
| **Basic Direct Teach Lesson**(Includes Special Education Modifications/Accommodations and one English Language Proficiency Standards (ELPS) Strategy) |
| **Instructional Objectives** | The student will be able to:1. Recognize the importance of the operation of 911 communication centers
2. Recognize the importance of the operation of computer-aided dispatch systems
3. Identify the roles and functions of fire protections services as related to 911 systems and computer aided dispatch
4. Explain the relationship between police, fire, and emergency medical services
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| **Rationale** | Fire department communications and their effectiveness are vital factors in the success or failure of fire service operations. Employees of a communications center need to be professionals versed in customer service and communication with people under stress. They must keep track of the status of emergency resources to be effective. |
| **Duration of Lesson** | 3 to 6 hours |
| **Word Wall/Key Vocabulary***(ELPS c1a,c,f; c2b; c3a,b,d; c4c; c5b) PDAS II(5)* |  |
| **Materials/Specialized Equipment Needed** | * Local Agency Incident Report
* Computers with Internet access
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| **Anticipatory Set**(May include pre-assessment for prior knowledge) | Engage the students in a discussion emphasizing that the success of fireground operations and the safety of firefighters at emergency scenes are directly related to effective communication. Firefighters, dispatchers, and other emergency personnel must focus on effective communications procedures used during emergency operations. Use the Discussion Rubric for assessment. |
| **Direct Instruction \*** | 1. Definition of Enhanced-9-1-1 (E-9-1-1)
	1. 9-1-1 is the number in the United States designated for requesting emergency aid, or to report a fire, accident, or crime. It is designed to make it easier for people in times of stress to contact emergency agencies. One of the biggest benefits is improved or reduced response times. Fire department communications are authorized under licenses granted to E-9-1-1 centers by the FCC (Federal Communications Commission).
2. Purpose of E-9-1-1
	1. E-9-1-1’s purpose is to connect callers with the correct emergency agency. E-9-1-1 systems consist of three separate elements:
		1. Network Element
			1. The digits 9-1-1 provide direct access to the E-9-1-1 system.
		2. Public Safety Answering Point (PSAP) Element (also called Public Safety Access Point)
			1. The PSAP is the designated agency or call center that receives E-9-1-1 calls and directs them to the appropriate emergency response agency (i.e., fire, police, ambulance). The system interfaces with the DMS/ALI database.
		3. Data Management System/Automatic Location Identification (DMS/ALI) Element
			1. The caller’s street address and other information is displayed and used with Computer Aided Dispatch (CAD) systems.
3. Computer Aided Dispatch
	1. Also known as computer-assisted dispatch
		1. The telecommunicator is assisted in their duties by a computer system
			* 1. Shortens response time
				2. Dispatchers can handle greater call volume
				3. Can reduce the amount of radio traffic between dispatchers and responding units
	2. Simple systems
		1. Retrieve run card information
	3. Complex systems
		1. Programmed to select and dispatch units
		2. Determine the fastest route to the scene of an emergency
		3. Monitor unit status
		4. Transmit supplemental information via mobile data terminals
		5. Most major fire departments would have difficulty functioning without some sort of computer system.

IV. E-9-1-1 Systems* 1. Combine telephone and computer equipment (such as CAD) to provide the telecommunicator with information instantly:
		1. Caller’s location
		2. Caller’s phone number
		3. Directions to the location
	2. Automatic Location Identification (ALI)
		1. Uses Global Positioning System (GPS) data
		2. ALI allows help to be sent even if callers are unable to identify their location.

C. Wireless telephones will not activate the E-9-1-1 ALI system V. Expanded Dispatch Centers* 1. Set up away from the permanent dispatch center
		1. Incidents often escalate beyond the capabilities of the communication/dispatch center.
			1. Mobile Command Posts
			2. City Hall
			3. Training Academy
		2. Take the additional load of dispatchers performing regular duties
			1. Increased radio traffic at major incidents
			2. Dedicate specific channels for major incident radio traffic
			3. An expanded dispatch center was used for the 9-11 terrorist attack on the World Trade Center
		3. National Interagency Fire Center (NIFC), Boise, Idaho
			1. Used in wildland fire season to coordinate fire attacks and responses in affected jurisdictions as needed
			2. Coordinates resource requests
			3. Tracks availability of resources used for suppressing fires or supporting incident operations

VI. Communications Center Personnel: Telecommunicator1. General Information
	1. Works at a PSAP
	2. Usually a full-time communication specialist
	3. Some jurisdictions use firefighters as telecommunicators
	4. Usually have the most contact with the public
2. Roles
	1. Process calls
		1. From unknown and unseen people in stressful situations
		2. Must obtain complete and reliable information from the caller
		3. A ring back feature allows the telecommunicator to call back a reporting party’s phone after they have hung up
	2. Dispatch emergency personnel
		1. Incident stabilization
		2. Know availability and status of emergency resources to assign them effectively
	3. Provide a community service
		1. Provide professional service
		2. Work with the public and multiple agencies
		3. Handle non-emergency calls as well as 9-1-1 system calls
3. Skills
	1. NFPA 1061, Standard for Professional Qualifications for Public Service Telecommunicator
		1. Minimum job performance standard
			1. Handle multitasking
			2. Make judgments based on common sense
			3. Deal with verbal abuse
			4. Function under stress
			5. Maintain composure
			6. Maintain confidentiality
	2. Communication skills
		1. Basic reading skills
		2. Basic writing skills
		3. Ability to speak clearly
		4. Ability to follow written and verbal instruction

VII. Procedures for Reporting a Fire or Other Emergency by Telephone1. Dial the appropriate number: 9-1-1
2. State the address where the emergency is located, or if no address is available, give the nearest cross streets or describe nearby landmarks.
3. Give the telephone number from which you are calling.
4. State the nature of the emergency (i.e., fire, auto accident, medical emergency).
5. State your name and location
6. Stay on the line, if requested to do so by the telecommunicator
7. Once an emergency call has been received, dispatch should occur within 60 seconds
8. When a distress call or other urgent message must be given out over the radio, it is classified as “EMERGENCY TRAFFIC,” and the channel is cleared

VIII. Emergency Service Relationships1. Maintaining a positive work environment ensures emergency services personnel’s (police, fire, and emergency medical services) well-being and productivity
	1. Emergency service organizations work together to create shared responsibility, and communicate to:
		1. Improve performance
		2. Improve productivity
		3. Provide a safe working environment
	2. It is the responsibility of each agency to do everything possible to protect and serve the citizens of its community
		1. Legal responsibility
		2. Moral responsibility
	3. Police, fire, and emergency medical service departments are independent of each other on a day-to-day basis. During an emergency, they must work together
		1. The public is poorly served by agencies that demonstrate petty jealousy
		2. We are not competing for public attention, our focus is public service
2. Office of Emergency Management (OEM)
	1. Coordination and training for inter-agency response is done through the OEM
		1. Functional training exercises
		2. Shared resources
		3. Education programs
		4. Reduces duplication of effort
	2. The true test of an effective Emergency Service Relation and an Emergency Management Program is how a community responds during an emergency
		1. Effective early warning or notification
		2. Dealing effectively with public safety issues
		3. Damage assessment
		4. Long term recovery issues
3. Good working relationships between police, fire, and emergency medical service agencies are important and necessary for the following reasons:
	1. Valuable shared information
	2. Improved services for customers (public)
	3. Appreciation for the difficulty in which each agency operates
	4. The top priorities for many agencies are similar:
		1. “To save lives and property”
		2. “To protect and serve”

*Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:*NONE |
| **Guided Practice \*** | *Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:*NONE |
| **Independent Practice/Laboratory Experience/Differentiated Activities \*** | Have students demonstrate or practice the following tactile learning skills:1. Fill out local agency incident reports (ask a local department for a copy)
2. Simulate receiving E-9-1-1 calls:
	1. Answer the telephone
	2. Gather pertinent information
	3. Provide instructions if caller is at immediate risk (i.e., CPR, evacuation procedures)
	4. Dispatch companies
	5. End the call in compliance with local protocols

3. Practice use of portable radios, and simulate emergency traffic and routine radio traffic*Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:*NONE |
| **Lesson Closure** |  |
| **Summative/End of Lesson Assessment \***  | Fire Department Communication Quiz and KeyFire Department Communication Checklist AFire Department Communication Checklist BDiscussion Rubric*Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:*For reinforcement, students will participate in peer teaching (mentoring) and team learning; participate in guided research and note-taking (web-based). Keep journals (key words and definitions). |
| **References/Resources/****Teacher Preparation** | * ISBN: 1418001775, *Introduction to Fire Protection* (3rd Edition)*,* Klinoff, Robert
* ISBN: 0135151112, *Essentials of Firefighting* (5th Edition), International Fire Service Training Association (IFSTA)
 |
| **Additional Required Components** |
| **English Language Proficiency Standards (ELPS) Strategies** |  |
| **College and Career Readiness Connection[[1]](#footnote-1)** | English/Language Arts1. Speaking

B. Develop effective speaking styles for both group and one-on-one situations.* + 1. Participate actively and effectively in one-on-one communication situations.
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| **Recommended Strategies** |
| **Reading Strategies** |  |
| **Quotes** |  |
| **Multimedia/Visual Strategy****Presentation Slides + One Additional Technology Connection** |  |
| **Graphic Organizers/Handout** |  |
| **Writing Strategies****Journal Entries + 1 Additional Writing Strategy** |  |
| **Communication****90 Second Speech Topics** |  |
| **Other Essential Lesson Components** |
| **Enrichment Activity**(e.g., homework assignment) | For enrichment, students will participate in a field trip to a local E-9-1-1 center or Emergency Management Center. |
| **Family/Community Connection** |  |
| **CTSO connection(s)** | SkillsUSA |
| **Service Learning Projects** |  |
| **Lesson Notes** |  |

1. Visit the Texas College and Career Readiness Standards at <http://www.thecb.state.tx.us/collegereadiness/CRS.pdf>, Texas Higher Education Coordinating Board (THECB), 2009. [↑](#footnote-ref-1)