



HEALTHCARE SCIENCE

COURSE: 25.564 Emergency and Disaster Preparedness

UNIT: 16.1 Potential Search and Rescue Situations



INTRODUCTION

Annotation:

This unit will cover the components of an effective search and rescue operation (size-up, search, and rescue) including the methods/techniques that rescuers can use to locate and safely remove victims.

Grade(s):

X	9 th
X	10 th
X	11 th
X	12 th

Time: Five 50 minute periods

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Students with Disabilities:

For students with disabilities, the instructor should refer to the student's IEP to be sure that the accommodations specified are being provided. Instructors should also familiarize themselves with the provisions of Behavior Intervention Plans that may be part of a student's IEP. Frequent consultation with a student's special education instructor will be beneficial in providing appropriate differentiation.



FOCUS STANDARDS

GPS Focus Standards:

HS-EDP-7. Students will analyze the components of an effective search and rescue operation (size-up, search, and rescue) including the methods/techniques that rescuers can use to locate and safely remove victims.

- a. Identify size-up requirements for potential search and rescue situations.
- b. Describe the most common techniques for searching a structure.
- c. Distinguish between simple and complex access.
- d. Demonstrate the use of safe techniques for debris removal and victim extrication, including but not limited to: the use of fulcrums and leverage, cribbing techniques, and victim transportation maneuvers.
- e. Describe methods to protect rescuers during search and rescue operations.
- f. Understand the role that maps and Global Positioning Systems (GPS) play in search and rescue operation.
- g. Demonstrate proper communication with both emergency dispatch (911) and other rescuers.

GPS Academic Standards:

ELA11C1. The student demonstrates understanding and control of the rules of the English language, realizing that usage involves the appropriate application of conventions and grammar in both written and spoken formats.

National / Local Standards / Industry / ISTE:



UNDERSTANDINGS & GOALS

Enduring Understandings:

Students will understand a variety of situations that might require a search and rescue operation.

Students will understand how to safely and effectively perform a scene size-up, search, and rescue including various methods of safely moving victims.

Essential Questions:

- What situations require search and rescue operations?
- How do I perform a scene size-up?
- What are the most effective ways to perform a search and rescue?
- In which situations do I move victims and how do I safely do so?
- How do I communicate effectively with other searchers and Emergency Medical Services (EMS) personnel?

Knowledge from this Unit:

- Student knows what situations require a search and rescue operation.
- Student knows when victims should be moved.
- Student knows codes and language commonly used in emergency radio communications.

Skills from this Unit:

- Student can perform a scene size-up.
- Student can participate in a search and rescue operation.
- Student can safely move victims when needed.
- Student can communicate appropriately with other searchers as well as EMS personnel.



ASSESSMENT(S)

Assessment Method Type:

- Pre-test
- Objective assessment - multiple-choice, true- false, etc.
 - Quizzes/Tests
 - Unit test
- Group project
- Individual project
- Self-assessment - May include practice quizzes, games, simulations, checklists, etc.
 - Self-check rubrics
 - Self-check during writing/planning process
 - Journal reflections on concepts, personal experiences and impact on one's life
 - Reflect on evaluations of work from teachers, business partners, and competition judges
 - Academic prompts
 - Practice quizzes/tests
- Subjective assessment/Informal observations
 - Essay tests
 - Observe students working with partners
 - Observe students role playing
- Peer-assessment
 - Peer editing & commentary of products/projects/presentations using rubrics
 - Peer editing and/or critiquing
- Dialogue and Discussion
 - Student/teacher conferences
 - Partner and small group discussions
 - Whole group discussions
 - Interaction with/feedback from community members/speakers and business partners
- Constructed Responses
 - Chart good reading/writing/listening/speaking habits
 - Application of skills to real-life situations/scenarios
- Post-test

Assessment(s) Title:

Mock Search and Rescue Drill

Assessment(s) Description/Directions:

Mock Search and Rescue Drill: Set up mock search and rescue situation ahead of class time. Place full body mannequin or CPR mannequin into any of the following areas: between seats in auditorium, in woods, between cars in parking lot, etc. Set out clues for students to find such as piece of torn clothing, shoe, footprint, etc. For larger class, set out multiple "victims" or have student's role play as victims and trade off roles during multiple drills.

Attachments for Assessment(s):



LEARNING EXPERIENCES

Sequence of Instruction

1. Identify the Standards. Standards should be posted in the classroom for each lesson.

HS-EDP-7. Students will analyze the components of an effective search and rescue operation (size-up, search, and rescue) including the methods/techniques that rescuers can use to locate and safely remove victims.

ELA11C1. The student demonstrates understanding and control of the rules of the English language, realizing that usage involves the appropriate application of conventions and grammar in both written and spoken formats.

2. Review Essential Questions.

- What situations require search and rescue operations?
- How do I perform a scene size-up?
- What are the most effective ways to perform a search and rescue?
- In which situations do I move victims and how do I safely do so?
- How do I communicate effectively with other searchers and Emergency Medical Services (EMS) personnel?

3. Identify and review the unit vocabulary.

Pre-assign unit by having students define vocabulary and read unit chapter in textbook for homework.

Blanket drag Clothing pull Firefighter Carry Georgia Search and Rescue (GSAR)

Rescue Recovery Triangulation Urban Search & Rescue (US&R)

LESSON ONE

1. Ask students to brainstorm situations that could potentially require a search and rescue team. What specialized resources are available to search and rescue teams? (Robots, canines, etc.)
2. Show slideshow: Search and Rescue. Have students take notes.
3. Wrap-up activity: Practice chair carry and fireman's carry.

Attachments for Learning Experiences for Lesson One: Search and Rescue Slideshow.

LESSON TWO/THREE

1. Warm-up Activity: Ask students to recall a time when they have been lost. How did they feel? What did they do? How was the situation resolved?

2. Split students into teams of 2-3. Tell students they will be creating a "Search and Rescue Scavenger Hunt." Allow students to go through the school corridors, cafeteria and the immediate exterior of the school and create a list of items for the other team to find. Items should require significant searching (such as a name on a list of names on a plaque, for example). Clues should be created for each item ("the farthest hallway that you know, this is where you must go....."). Teams should use a school map to create an answer key. Each team should create a hunt of 10 items.

3. Following day: Randomly hand out scavenger hunts to teams, ensuring that no team receives their original hunt list. Tell teams they have 30 minutes to find as many items as they can. Remind students they must remain with their "buddy" at all times or be disqualified.

4. Wrap-up activity: discuss which items were the easiest to find and which were the hardest. Why? Did the winning team use any special strategy or approach to the search?

LESSON FOUR

1. Ask students if they know what the "military" or phonetic alphabet is (alpha, bravo, etc). Ask them why they think it was developed and when it is used today.

2. Slideshow: Radio Communications. Hand out copy of Prowords to students.

3. Place students in pairs and have them practice using prowords as if speaking on radio (if handheld radios available, do this as outdoor lab activity).

5. Wrap-Up Activity: Play hangman on board using Phonetic Alphabet.

Attachments for Learning Experiences: Radio Communications Slideshow

LESSON FIVE

Set up mock search and rescue situation ahead of class time. Place full body mannequin or CPR mannequin into any of the following areas: between seats in auditorium, in woods, between cars in parking lot, etc. Set out clues for students to find such as piece of torn clothing, shoe, footprint, etc. For larger class, set out multiple "victims" or have student's role play as victims and trade off roles during multiple drills.

1. Warm-up Activity: Review radio communications from previous day's lesson. Remind students that all communications during class must be in radio format.

2. Lead students through mock search and rescue situation.

4. Wrap-Up Activity: "Debrief" class with discussion about what was done well and what needed improvement.

Attachments for Learning Experiences:

Notes & Reflections:



CULMINATING PERFORMANCE TASK (Optional)

Culminating Unit Performance Task Title:

Culminating Unit Performance Task Description/Directions/Differentiated

Attachments for Culminating Performance Task



UNIT RESOURCES

Web Resources:

www.nhtsa.gov

www.citizencorps.gov/cert/

<http://www.fema.gov/>

<http://www.fema.gov/emergency/usr/>

http://www.salary.com/careers/layouthtmls/crel_display_Cat10_Ser188_Par287.html

Attachment(s):

Materials & Equipment:

What 21st Century Technology was used in this unit:

- Slide Show Software
- Interactive Whiteboard
- Student Response System
- Web Design Software
- Animation Software
- Email

- Graphing Software
- Calculator
- Desktop Publishing
- Blog
- Wiki
- Website

- Audio File(s)
- Graphic Organizer
- Image File(s)
- Video
- Electronic Game or Puzzle Maker