Grades or Ages: Grades 10-12. Subject Matter: First aid and survival education. Organization and Physical Appearance: The guide is divided into six sections: transportation of the injured, automobile accidents, conditions resulting from nuclear explosion, chemical warfare, natural catastrophes, and psychological first aid. The publication format of four columns gives the outline of content, the major understandings and fundamental concepts, suggested teaching aids and learning activities, and supplementary information for teachers. The course objectives are presented in the introduction. The guide is soft covered. Objectives and Activities: Each subsection contains questions and topics for discussion. The supplementary information provides teachers with further discussion material. Instructional Materials: Lists of multimedia resources are presented for teachers and students. Information is also given on the procurement of teaching kits, mannequins, and injury simulations. Student Assessment: No provision is made. Options: The guide is suggestive only. (BRB)
HEALTH CURRICULUM MATERIALS
Grades 10, 11, 12
STRAND V - EDUCATION FOR SURVIVAL
FIRST AID AND SURVIVAL EDUCATION
U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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The University of the State of New York/The State Education Department
Bureau of Secondary Curriculum Development/Albany

1970

FIRST AID AND SURVIVAL EDUCATION
STRAND V - EDUCATION FOR SURVIVAL
GRADES 10, 11, 12
HEALTH CURRICULUM MATERIALS
THE UNIVERSITY OF THE STATE OF NEW YORK
Regents of the University (with years when terms expire)

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FOREWORD

This publication contains curriculum suggestions for teaching Strand V - Education For Survival, First Aid, for grades 10, 11, and 12. It is recommended that the health coordinator in each school system carefully review these materials and consult with teachers, administrators, and leaders of interested parent groups in order to determine the most appropriate manner in which to utilize this resource. The publication format of four columns is intended to provide teachers with a basic outline of the curriculum, as well as specific suggestions for classroom teaching and supplementary materials. Teachers are encouraged to develop their own materials and cross-reference these materials with other health education programs. The comprehensive nature of the health program makes it imperative that teachers gain familiarity with all of the strands presently in print. In this way, important teaching-learning experiences may be developed by cross-referencing from one strand to another. The curriculum materials presented here are in tentative form and are subject to modification and improvement. Critiques of the format, content, and sequence are welcomed.

William E. Young
Director, Curriculum Development Center
Gordon E. Van Hooft
Chief, Bureau of Secondary Curriculum Development
OPTIMAL HEALTH

KNOWLEDGE
- Concepts
- Generalizations
- Understandings
- Facts

ATTITUDE
- Values
- Appreciation

BEHAVIOR
- Basic Skills
- Decision Making

Strand I
PHYSICAL HEALTH
- Health Status
- Nutrition
- Sensory Perception
- Dental Health
- Disease Prevention and Control

Strand II
SOCIOLOGICAL HEALTH PROBLEMS
- Smoking and Health
- Alcohol Education
- Drugs and Narcotic Education

Strand III
MENTAL HEALTH
- Personality Development
- Sexuality
- Family Life Education

Strand IV
ENVIRONMENTAL AND COMMUNITY HEALTH
- Environmental and Public Health
- World Health
- Ecology and Epidemiology of Health

Strand V
EDUCATION FOR SURVIVAL
- Safety
- First-Aid and Survival Education

iv
FIRST AID
GRADERS 10, 11, 12

Overview

Many factors in modern American life continue to contribute to increasing problems of injury and possible death. For example, increases in population and the number of cars on our highways are two obvious factors, among many others, which play a part in increasing the possibility of the mass type injuries.

This Strand, therefore, places emphasis on the need for each high school student to develop a sense of responsibility for his welfare and for the welfare of others. Attention is given to:

- Preventing accidents which may result in injury
- Recognizing, appraising, and making accurate decisions in emergency situations
- Preparing for natural and manmade catastrophes, such as hurricanes and war
- Transporting the injured
- Recognizing and treating multiple injuries, as well as simple injuries

Before teaching this Strand, the teacher should have completed at least one of the first-aid programs offered by many colleges, universities, the American Red Cross, or Civil Defense Department.

Outcomes

Students in grades 10, 11, and 12 should:

- develop an awareness of the kinds of injuries which may occur during emergencies.
- become proficient in first aid procedures.
- learn how to prevent accidents, prepare for disasters, and provide first aid when necessary.
- develop a sense of responsibility for the welfare of others, as well as for themselves.
- learn how and when to move and transport the injured.
- understand the need for cooperation of individuals and agencies in the event of catastrophe.
I. Transportation of the Injured

A. General precautions

When a person is injured:

- The injured person should be moved only to:
  - where it would be necessary
  - to remove him from immediate danger of death
  - to transport him to immediate medical aid
  - to perform adequate first aid

- A person should be moved only to:
  - where it would be necessary
  - to remove him from immediate danger of death
  - to transport him to immediate medical aid
  - to perform adequate first aid

Improper transportation frequently make the injury worse and may even cause death.

Discuss proper handling of the injured so that students understand the dangers involved in improper handling.

Discuss:

- Why is jackknifing the body so dangerous?
- What kinds of injuries would be most severely aggravated by this kind of treatment?
- Could jackknifing ever be used to transport an injured person?
- What precautions should be taken to transport an injured person?

For teachers:

Supplementary Information for Teachers

Additional Resources for First Aid, Grades 7, 8, 9 for Detailed

Refer to Strand V, First Aid, Grades 4, 5, 6 for Introduction

Fundamental Concepts

Major Understandings and Learning Activities
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<tr>
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<tbody>
<tr>
<td>B. Types of carries</td>
<td>In an emergency situation, one of the most important decisions to be made is whether or not the victim should be moved. All life-saving measures should be taken before an attempt is made to move an injured person.</td>
<td>Discuss the general factors that should be considered before transporting an injured person.</td>
<td>Each extremity, the head and the back, keeping the entire body in a straight line and keeping it immobilized.</td>
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<tr>
<td></td>
<td>The carry to be used will depend on: the kind or extent of injury, the materials available, the ability of the first aider and additional help available.</td>
<td>Discuss the general method of moving and carrying the injured. Which methods are most useful for moving only short distances? Which methods are most useful for moving long distances?</td>
<td>If it becomes necessary to move the injured: bleeding should be stopped, breathing established, fractures splinted, the injured treated for shock. Further, the proper kind of transportation must be selected, and each person assisting the first aider should be given specific instructions. Methods of transfer include: the walking assist, manual carriers, transfer by stretcher or cot, and transfer by vehicles. In carrying a victim one should guard against losing one's balance. By lifting gradually and using proper techniques, back injury to the carriers can also be avoided.</td>
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</tbody>
</table>
Many of the lifts and carries mentioned on the previous page can be used for transporting the injured only short distances. Occasionally, it is necessary to transport the injured long distances. The following information involves transportation in such an event.

C. Vehicular Carries

In either a lift or slanting position to transport many victims, frequently large enough than a car. A truck provides a better floor of the vehicle or the mattress placed on the mattress can serve as an ambulance. A car or station wagon can be made into an ambulance by placing the victim in suitable position for an ambulance. The size of the car may not accommodate the position in which the victim should be placed. What are the limitations of motor vehicles? How can a car or station wagon be made into an ambulance?

1. Cars and other motor vehicles
   - Except in an extreme emergency, it is best to wait until an ambulance is available. A station wagon is an excellent substitute for an ambulance. A mattress placed on the floor of the back of a truck provides a better means of transportation than a car. A bus is frequently used to transport many victims in a lying or sitting position.
   - A regular ambulance is the best means of transportation, since it has all the necessary equipment for handling injured persons. A station wagon can be used in an emergency, but the size of the car may not accommodate the position in which the victim should be placed.

2. Trucks

American National Red Cross

AL INFORMATION ON CARRIES, see Appendix A for addition.
2. Boats

Many boating accidents occur during the summer months.

Discuss situations in which boats would be used to transport the injured.

Discuss some of the disadvantages of transporting an injured person in a boat.

After completing the unit on transportation, skits might be developed of accidents where transportation would be needed.

Example:
While on a camping trip with three of your friends, one of them falls and breaks his leg. You are deep in the woods and about 3 miles from the nearest town. Describe the drive should be at moderate speeds with gentle stops and starts, and with the observation of all safety rules. The person should not be rushed to the hospital. The factor of haste has been studied by a group of clinical investigators who found that in a series of some 2,500 consecutive ambulance runs, haste in transporting the injured was actually unnecessary in 98.2% of the cases.

Boats frequently lack room which makes it impossible to place the injured victim in a lying position. The bouncing of the boat and the heat from the sun might aggravate the individual's condition.

Students should be given a practical examination on the methods of transportation. They should be scored on the preparation of the victim for transportation as well as the transportation skills.
II. Automobile Accidents

Because of the tremendous impact forces involved in many auto accidents, there is usually more than one type of injury and these are frequently of a complex rather than simple nature.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

The first aider's responsibility to the accident victim, to others who may be injured, and to himself?

What is the first aider's responsibility to the accident victim, to others who may be injured, and to himself?

Discuss the kinds of injuries that may result from automobile accidents.

In a detailed study of 1,000 automobile accidents involving over 2,000 occupants, it was found that over 74 percent of the individuals sustained some degree of injury, and in 72 percent, injury to the head was the first and most severe degree of injury. In over 15 percent of the cases, there were injuries to the upper extremities sustained in almost 57 percent of the cases, the chest and spine in 29 percent of the cases, the lower extremities sustained in over 27 percent of the cases. In over 72 percent of the cases, there were injuries to the lower extremities. In over 74 percent of the cases, there were injuries to the head. In over 72 percent of the cases, there were injuries to the upper extremities. In almost 57 percent of the cases, the chest and spine. In over 27 percent of the cases, there were injuries to the lower extremities. In over 74 percent of the cases, there were injuries to the head and spine.

In almost 57 percent of the cases, there were injuries to the upper extremities. In over 27 percent of the cases, there were injuries to the lower extremities. In over 74 percent of the cases, there were injuries to the head and spine.

Multiple injuries were extremely common and consisted of head injuries combined with injury to another part of the body. Read:

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<tr>
<td>A. First aid pro-</td>
<td>A cursory inspection of the victim may indicate super-</td>
<td>Discuss the importance of evaluating the victim's injuries before removing him from the car.</td>
<td>In many cases, information about injuries sustained in a car accident can be obtained from the injured person. The type of first aid and medical help needed can be determined as a result of the evaluation. What first aid must be given before the victim is removed and the method of removing him from the car can also be determined as a result of the evaluation.</td>
</tr>
<tr>
<td>cedures in auto</td>
<td>ficial injuries while more serious types of injuries may go unnoticed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>accidents</td>
<td>1. Evaluation of the injuries</td>
<td>Lifesaving measures may have to be taken before the victims are removed from the car.</td>
<td>In car accidents where more than one victim is involved, the injured must be cared for according to the seriousness of their injuries.</td>
</tr>
<tr>
<td>2. First aid principles</td>
<td>The most seriously injured person should be given first aid first. The most vital systems of the body must be given priority when giving first aid to automobile accident victims. Priority should be given to: 1. Bleeding 2. Breathing 3. Shock</td>
<td>Discuss the first aid procedures that should be followed if the victim has a stoppage of breathing or profuse bleeding. Why must serious bleeding be stopped even before giving resuscitation?</td>
<td>Victims should be checked to see if they are breathing. If artificial respiration is needed, the mouth-to-mouth method should be used. Ha...age should be con-t: ...d by direct pressure ov...e...e bleeding area and con... maintained by the application of a pressure dressing.</td>
</tr>
</tbody>
</table>

See Strand V, First Aid, Grades 7, 8, 9 for specific procedures.
a. Fractures

All fractures must be splinted before removing the victim from the car. Splinting requires an advanced skill. It takes a lot of time to practice and requires practice to become proficient. In many cases, it is rare that a first-aider will be involved with a neck or back fracture that he would become proficient in caring for. However, if a neck or back fracture is evident, it should be covered with a clean sheet. If the body is extensively burned, it should be covered with a clean sheet. If burns are extensive, fluids should be administered immediately and cared for with a clean dressing until the victim can be gotten to a hospital. Burns should be covered with a clean dressing until the victim can be gotten to a hospital. Burns are extremely painful and can be a dangerous situation requiring immediate medical attention.

b. Burns

Burns should be covered with a clean dressing until the victim can be gotten to a hospital. Burns are extremely painful and can be a dangerous situation requiring immediate medical attention.

c. Whiplash

Whiplash is a common type of neck injury when a car is struck from behind by another car. Whiplash is often accompanied by unconsciousness, pain in the neck and back, and a dazed or stunned feeling which may be accompanied by a frontal headache. What is the first aid for whiplash? What is the first aid for a frontal headache? What is the first aid for a back, and/or a dazed or stunned feeling which may be accompanied by unconsciousness? What is the first aid for unconsciousness? Whiplash is a common type of neck injury when a car is struck from behind by another car. Why is this such a common injury? Why may it be extremely serious? What is being done to help prevent it? What is the first aid for whiplash? This type of accident may cause a forward and then backward whip-like movement of the neck which may be repeated several times within a few seconds, causing a strain on the neck muscles. In many cases, there is a danger of severing the spinal cord resulting in paralysis or death. In 50 percent of the cases that involve whiplash, there is a definite pain in the neck and shoulders. The rear-end-collision type of accident causes a forward and then backward whip-like movement of the neck which may be repeated several times within a few seconds, causing a strain on the neck muscles. In many cases, there is a danger of severing the spinal cord resulting in paralysis or death.
d. Chest injuries  
Chest injuries may occur from impact within the car or with the pavement.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

Should the first aider attempt to distinguish from other neck or back injuries? Why?

What are the first aid procedures for a chest injury?

What should the first aider do in case of a puncture in the chest wall?

SUPPLEMENTARY INFORMATION FOR TEACHERS

Chest injuries result from severe impact forces which occur when an individual strikes an object within the car or is catapulted from a car onto a pavement. The chest may be caved in or a hole may be produced causing a sucking wound of the chest. Rupture of the esophagus may be present as well as rupture of the aorta. A sucking wound of the chest should be cared for immediately by placing sufficient dressing material firmly over the wound to stop air exchange through it.
III. Conditions Resulting from a Nuclear Explosion

A. Intense light injuries

B. Many injuries will result from the light created by the explosion.

C. Injuries sustained from a Nuclear Explosion. A nuclear explosion may cause death and injury to all forms of life within the explosion radius.

D. Many injuries will result from the light created by the explosion.

E. A first aider should prevent themselves from the light created by the explosion.

F. What precautions must be taken?

G. A first aider should prevent themselves from the light created by the explosion.

H. The light created by the explosion may cause death and injury to all forms of life within the explosion radius.

I. Many injuries will result from the light created by the explosion.

J. What precautions should be taken?

K. A first aider should prevent themselves from the light created by the explosion.

L. The light created by the explosion may cause death and injury to all forms of life within the explosion radius.

M. Many injuries will result from the light created by the explosion.

N. What precautions must be taken?

O. A first aider should prevent themselves from the light created by the explosion.

P. The light created by the explosion may cause death and injury to all forms of life within the explosion radius.

Q. Many injuries will result from the light created by the explosion.

R. What precautions must be taken?

S. A first aider should prevent themselves from the light created by the explosion.

T. The light created by the explosion may cause death and injury to all forms of life within the explosion radius.

U. Many injuries will result from the light created by the explosion.

V. What precautions must be taken?

W. A first aider should prevent themselves from the light created by the explosion.

X. The light created by the explosion may cause death and injury to all forms of life within the explosion radius.

Y. Many injuries will result from the light created by the explosion.

Z. What precautions must be taken?

AA. A first aider should prevent themselves from the light created by the explosion.

BB. The light created by the explosion may cause death and injury to all forms of life within the explosion radius.

CC. Many injuries will result from the light created by the explosion.

DD. What precautions must be taken?

EE. A first aider should prevent themselves from the light created by the explosion.

FF. The light created by the explosion may cause death and injury to all forms of life within the explosion radius.

GG. Many injuries will result from the light created by the explosion.
B. Shock wave injuries

There are two types of blast injuries that are produced:

- Direct blast injuries result from the positive pressure phase of the shock wave.
- Indirect or secondary effects of the blast

C. Burns

Burns may result from the heat, initial radiation, and radioactive fallout.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

How may damage to the eyes be prevented?

See Strand V, First Aid, Grades 7, 8, 9.

Discuss the damage to the body that results from the blast of a nuclear explosion.

Discuss the first aid for injuries resulting from the blast and shock wave.

See Strand V, First Aid, Grades 7, 8, 9, for details of treating burns.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

Is the first aid for these injuries different from when these injuries are caused by some other kind of catastrophe? Explain.

The direct blast acts on the body in such a way as to cause injury to the lungs, stomach, intestines, and eardrums, as well as producing internal hemorrhage.

The indirect effects of the blast cause injuries from collapsing buildings, timber, glass, and other debris flung about by the blast wave. Injuries may vary from complete crushing of the body, severe fractures, and serious lacerations to minor scratches and bruises.

The first aider would have to care for shock, fractures, crushing injuries, wounds, etc.

Thermal radiation produces almost immediate redness of the skin. Flame burns result from the ball of fire created by the fire storm and secondary fires resulting from burning buildings.
URAL TEXT_START

OUTLINE OF CONTENT

1. Thermal
2. Radiation

MAJOR UNDERSTANDINGS AND SUGGESTED TEACHING AIDS

SUPPLEMENTARY INFORMATION

FUNDAMENTAL CONCEPTS AND LEARNING ACTIVITIES

Flash burns result from the brief, highly intense thermal radiation given off by the initial explosion. Discuss the first aid for injuries that result from the heat and initial radiation of a nuclear explosion.

Radiation injury is caused by the damaging effects on the body tissues of radiation and fallout. Discuss the damage to the body that results from exposure to high concentrations of penetrating radiation. The effects of radiation on the body depend on:

- The amount of radiation applied
- The rate of absorption by the body
- The time interval over which the radiation is applied
- The type of radiation on the body

Hospitalization for radiation illness is usually essential. First aid treatment for radiation effects consists mainly of rest. Discuss the symptoms of radiation sickness. Discuss the first aid for radiation sickness.

Burns of this type may be of the first, second, or third degrees. First aid for burns involves preventing infection, and protecting and dressing the burns. Preventing and treating shock, debriding the burns, and protecting and treating the burned area are essential. First aid for burns involves: Preventing infection, and protecting and dressing the burns. Preventing and treating shock, debriding the burns, and protecting and treating the burned area are essential.

Examples of radiation include alpha, beta, and gamma rays, neutrons, and x-rays. Damage may also result from x-rays, neutrons, and gamma rays. The effects of radiation are caused by the damaging effects on the body tissues of radiation and fallout. Damage may also result from the radioactive materials that are formed as products of the nuclear explosion. The initial radiation caused by the blast can produce radiation burns. Exposure to high concentrations of penetrating radiation destroys living tissues, especially the bone marrow which forms red blood cells, and white blood cells.

Radiation sickness is a term used to describe the effects of exposure to radiation. Symptoms of mild radiation sickness include nausea, loss of appetite, fatigue, and headache. Other symptoms may include sensitivity to light, dry eyes, and sore throat. Radiation sickness is caused by the damaging effects on the body tissues of radiation and fallout. Radiation sickness is caused by exposure to high concentrations of penetrating radiation. Exposure to high concentrations of penetrating radiation destroys living tissues, especially the bone marrow which forms red blood cells, and white blood cells.

FOR TEACHERS AND LEARNING ACTIVITIES

For Teachers
Supplementary Information

Fundamental Concepts and Modeling Understandings and Outlines of Content
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<tr>
<td>IV. Chemical Warfare</td>
<td>Factors which affect radiation intensity are:</td>
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<tr>
<td></td>
<td>• Shielding which absorbs the radiation</td>
<td></td>
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<td></td>
<td>• Distance which reduces the intensity</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Time - some sources of radiation decay rapidly with time</td>
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<td>Chemical warfare is conducted with weapons that produce poison gas, fire, smoke, etc.</td>
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<td>Discuss with students how chemical warfare could be waged</td>
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<td>Discuss the factors that help in the prevention of radiation sickness.</td>
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<td>of appetite, and fatigue. Recovery is frequently rapid.</td>
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<td>Severe radiation sickness involves nausea, vomiting, prostration, sore mouth and bleeding gums, diarrhea, hair falling out, rapid emaciation develops, and death occurs.</td>
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<tr>
<td></td>
<td>The further away a person is from fallout the less he will be affected by it. Fallout is most dangerous in the 24 hours immediately following the blast.</td>
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</table>

**A. Kinds of chemicals used**

| Gases are the primary chemicals used in warfare. They include: |
| • tear gas |
| • gases which affect the gastro-intestinal tract |
| • gases which may cause blistering of the skin |
| Discuss the kinds of chemicals used in warfare. |
| What is the major danger involved in chemical warfare? |
| Biological Warfare - Refer to Strand I, Disease Prevention and Control Grades 10-12. |
| During wartime, chemicals could be released in water supplies, sprayed into the air, or released in exploding bombs. |
| Gases are used because of their toxic, irritating, blinding, or blistering properties. They are classified on the basis of physiological properties into the following groups: tear gases (lacr imators), |
OUTLINE OF CONTENT

B. First aid procedures

MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

Choking gases and dermatitis when absorbed.

Nerve gases and cause vomiting, respiratory tract irritation, and severe blistering, burning.

Systemic poisons

First aid for most gases involves getting the victim to fresh air.

If breathing has stopped, resuscitation should be given immediately.

For blistering gases, the affected areas should be washed with soap and water.

Discussion: First aid for burns.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

How can each person protect himself from chemicals in the event of war?

Study news clippings and reports of how tear gas and mace are used in this country for squelching riots, etc.

See New York State Health Department pamphlet on "Rescue Breathing.

Discuss first aid for burns.

For blistering gases, the affected areas should be washed with soap and water.

These gases are frequently used in riots. They are not lethal.

These gases are not lethal.

Blood gases (systemic poisons), nerve gases (neuroirritants), choking gases (lung irritants), blistering gases (vesicants), vomitizing gases (sternutators).
### OUTLINE OF CONTENT  
**MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS**

#### V. Natural Catastrophes

- **A. Earthquakes**
  - Injuries frequently occur after the earthquake from the hazards left by the quake.
  - Discuss the kinds of injuries that may result from earthquakes.

- **B. Storms**
  - **1. Hurricanes**
    - Many kinds of injuries would result from rising waters, fallen electrical wires, and flying debris. Injuries would involve wounds, fractures, electrical burns, drownings, shock, and crushing injuries.
    - Discuss the kinds of injuries that would result from floods and hurricanes and the first aid that would be administered.

#### SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

- **V. Natural Catastrophes**
  - Discuss the kinds of injuries that may result from earthquakes.
  - **See Strand V, First Aid, Grades 7, 8, 9 for first aid procedures for specific kinds of injuries.**
  - In earthquakes, most injuries occur as people are entering or leaving buildings. Injuries result from falling walls, fallen electric wires, and fires. Injuries would include electric shock, burns, fractures, crushing injuries, shock, and wounds.

#### SUPPLEMENTARY INFORMATION FOR TEACHERS

- Nerve gases are the most toxic, insidious, and terrifying chemical agents known at the present time. They are quick killers.
- Systemic poisons or blood gases produce their effects by interfering with vital oxidative processes of the body.

OUTLINE OF CONTENT

2. Tornadoes

3. Winter storms

MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

Injuries occurring from tornadoes would include almost every type. Extreme winds and cold produce cases of frostbite, frozen limbs, and death. A few sincere, well-spoken words of assurance can do much to help calm a person who is emotionally upset. A person who is emotionally upset may present a danger to himself as well as to those around him. Discuss the signs which might be present and indicate that the person is upset emotionally. An extremely emotionally upset individual should be placed in the hands of a physician, ambulance crew, or law enforcement officer.

VI. Psychological First Aid

A person who is emotionally upset may present a danger to himself as well as to those around him. Discuss the signs which might be present and indicate that the person is upset emotionally. An extremely emotionally upset individual should be placed in the hands of a physician, ambulance crew, or law enforcement officer.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

Discuss the kinds of injuries that result from tornadoes and the first aid that would be administered. Discuss the kinds of injuries that result from winter storms. Discuss the first aid procedures for frostbite. The victim may be in a panic state or a depressed state; be confused, or stuporous; show memory loss; be in a depressed state; or have hallucinations around death. Handle the victim with respect and patience. Try to calm, comfort, and reassure him. Only when his actions may further injure himself or others, or when a life is at stake, might physical restraining be permitted as a last resort. In an emergency, medical and natural disasters. Handbooks on nuclear attack. A Citizen's Handbook. Office of Civil Defense, Office of Civilian Defense, Office of Emergency Management. Washington, D.C. Office of Civil Defense, Office of Civilian Defense. A Citizen's Handbook. Wash. D.C. See Strand V, First Aid. March 1968.
At this time the teacher may wish to consider a unit on "How To Deliver a Baby in an Emergency."

Recommended resources are:


Although in most instances it is best not to move an accident victim, there are some circumstances in which he must be transported. The first aider should also know how to use a stretcher. These may usually be obtained from the nurse-teacher's office. The steps that lead to proper use include planning and rehearsing; having a leader; and setting down the victim; carrying, walking, and lifting. Good descriptions can be found in the American Red Cross First Aid Manual, Diagnosis and Management, 1965.

Some techniques to practice include fireman's drag, walking assist, back carry, two-man arms carry, chair litter, hammock carry, and the traction blanket lift. The first aider should also know how to use a stretcher. These may usually be obtained from the nurse-teacher's office. The steps that lead to proper use include planning and rehearsing; having a leader; and setting down the victim; carrying, walking, and lifting. Good descriptions can be found in the American Red Cross First Aid Manual, Diagnosis and Management, 1965.
MULTIMEDIA RESOURCES

STRAND V

EDUCATION FOR SURVIVAL

FIRST AID

Grades 10, 11, 12

TEACHER REFERENCES

These supplementary aids have not been evaluated. The list is appended for teacher convenience only and teachers in the field are requested to critically evaluate the materials and to forward their comments to the Curriculum Development Center.

Books


A new issue comes out every year.


Periodicals


Audio - Visual Aids

Films

A call to action. Local chapter of the American Red Cross. 13½ min. black & white. Film shows how the Red Cross was on the job during the Alaskan earthquake and the 1964 Ohio Valley floods.

A tale of two cities. Film Library, New York State Department of Health, 84 Holland Avenue, Albany, New York, 12208. 12 min. black & white.

Disaster and you. Local chapter of the American Red Cross. 27 min. black & white.

Emergency childbirth. Department of Health, Education and Welfare, Health Mobilization Office, 42 Broadway, Room 636, New York, N.Y. 10004. This film can be obtained from the local civil defense unit. 30 min. color.

If disaster strikes. Film Library, New York State Department of Health, 84 Holland Avenue, Albany, New York, 12208. 13½ min. color.
Additional filmstrips are available in the teaching kits made available by the United States Department of Defense in conjunction with the United States Department of Health, Education and Welfare and the Instructional Materials Laboratories, Inc. of New York. These kits are described below.

**Flip Charts**

Flip chart for the training course for medical aides in aid stations. A 102 page, 18\(\frac{1}{2}\) X 28\(\frac{1}{2}\) chart in color.

New York, 30, New York.

Filmstrips

- Radiation and fallout.
- Shelter.
- Water.
- Transportation of the injured.
- One who cared.
- Nuclear radiation fallout.
- Radioactive fallout and shelter.
- Sudden birth.
- Unexpected moment.
- Water.

Middletown, U.S.A.

Local chapter of the American National Red Cross.

20 min. black & white.

Midford, U.S.A.

Local chapter of the American National Red Cross.

20 min. black & white.
Injury Simulations

Injury simulations are available from Simulaids, Woodstock, New York, 12498, and from Anderson Research Laboratories, Inc., 729 Canal Street, Stamford, Connecticut. These kits contain simulated injuries involving burns, fractures, wounds, amputations, frostbite, shock, and atomic radiation burns. For more detailed information on these visual aids write for a catalog or consult the reference section of the First Aid Unit for Grades 4, 5, 6.

Mannequins

Half-bodied and full-bodied mannequins are available from the Guardian Safety Equipment Company, 37 East 21st Street, Linden, New Jersey, 07037; Laerdal Medical Corporation, 136 Marbledale Road, Tuckahoe, New York, 10707; Alderson Research Laboratories, Inc., 729 Canal Street, Stamford, Connecticut; Simulaids, Woodstock, New York, 12498; and Uni/Flex Medical Supply Company, Rockford, Illinois, 61101. For more information about these aids write for a catalog or consult the reference section of the First Aid Unit for Grades 4, 5, 6.

Teaching Kits

The United States Department of Defense in conjunction with the United States Department of Health, Education and Welfare has prepared A Medical Self-Help Instructor's Kit. This kit consists of a cardboard suitcase containing all the necessary materials in basic health survival principles. The kit contains an instructor's guide, a course introduction, eleven lesson plan books, the reference manual Family Guide Emergency Health Care, eleven 35 mm filmstrips, and examination booklets, and grading templates. The filmstrips and lessons that would be valuable in first aid instruction for grades 10, 11, and 12 would include those on radioactive fallout and shelter, healthful living in emergencies, transportation of the injured, burns, infant and child care, and emergency childbirth. There is also a set of eleven 16 mm color-sound films available, one for each lesson. In addition, there is a 13½ minute color film narrated by Danny Thomas, "If Disaster Strikes," which explains the program and shows the value of medical self-help training. The New York State Department of Health should be contacted for information on how to get the Medical Self-Help training Kits and student supplies which are available without charge.

The Instructional Materials Laboratories, Inc., located at 18 East 41 Street, New York, N.Y. 10017, has available a programmed instruction school first aid course that was developed by Johnson and Johnson. Each classroom unit kit contains 30 student programmed text manuals, 1 classroom demonstration kit of first aid products, 1 full color filmstrip with complete teacher script and test questions, 1 teacher's programmed text guide, 30 progress test booklets, 30 safety check lists for home preparedness, 30 course completion cards, and 2 achievement certificates. The cost for this kit is approximately $120.00. Adjunct sets (to supplement classes larger than 30) containing materials for 10 students are available for approximately $40.00.
The Spine and Neck Sensor is available from Simulaids, Woodstock, New York, 12498. This device teaches first aiders to apply a backboard without the serious excess movement of a patient's injured back or neck. The cost is approximately $49.95.