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ABSTRACT

This booklet comprises the fifth grade component of a series of curriculum guides on fire and burn prevention. Designed to meet the age-specific needs of fifth grade students, its objectives include: (1) exploring heating equipment safety, (2) analyzing the impact of fire on the outdoor environment and methods to reduce that impact, (3) developing awareness of first aid for burns, and (4) exploring one's personal relationship to community fire safety. Texas essential elements of instruction that may appropriately be integrated with the fire prevention curriculum are listed. The booklet's three sections provide lesson plans, teacher materials, and student materials. The five lessons are: "Charged Up for Home Safety"; "Charged Up To Save the Outdoors"; "Fire Hurts the Entire Community"; "We All Contribute to Community Safety"; and "Fire Safety for Yourself." Each lesson plan includes objectives; a list of materials; and suggestions for a focus activity, presentation of content, guided and independent practice, reteaching, enrichment, and closure. A pretest/posttest is provided, along with activity sheets to be photocopied. A scope and sequence chart covering kindergarten through high school is also presented. (JDD)

SP

Fire Safety for Texans

Fire and Burn Prevention Curriculum Guide Developed by Texas Commission on Fire Protection

Fifth Grade

Charged Up For Fire Safety

Texas Commission on Fire Protection
P.O. Box 2286 Austin, TX 78768-2286 (512) 918-7100 FAX (512) 918-7107

Dear Educator:

The Texas Commission on Fire Protection is pleased to provide this curriculum guide to facilitate the teaching of fire prevention. To understand why instruction in fire prevention must be matched to the developmental needs of students, please read the Introduction section beginning on Page 3. This introduction also tells how fire prevention education can be coordinated with the instructional requirements of Texas schools.

We welcome your comments and suggestions. Please telephone or write to share your successes and questions with our staff. Also, we invite you to request guides for other grade levels and additional copies of this booklet by clipping and returning the form below.

Your involvement in fire prevention education will be appreciated by your students and your entire community.

Sincerely,

Anne Easterling
Program Administrator
Fire Prevention Education

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Please send the following curriculum guide(s):

Grade Level	Quantity	Grade Level	Quantity	Grade Level	Quantity
Kindergarten		Fourth Grade		Seventh Grade	
First Grade		Fifth Grade		Eighth Grade	
Second Grade		Sixth Grade		High School Health	
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Fire Safety for Texans

Fire and Burn Prevention
Curriculum Guide Developed by
Texas Commission on Fire Protection

Fifth Grade

Charged Up For Fire Safety

Published March 1993
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Fire Safety for Texans

The complete series from the Texas Commission on Fire Protection

Kindergarten
Fire Safe Together

First Grade
Fire Safety: Any Time, Any Place

Second Grade
Making Me Fire Safe

Third Grade
Positively Fire Safe

Fourth Grade
Fire Safety: Stop the Heat

Fifth Grade
Charged Up For Fire Safety

Sixth Grade
Fire Safety Power

Seventh Grade
Responsible For Fire Safety

Eighth Grade
Fire Safety's My Job

Health (High School)
A Lifetime For Fire Safety

Economics (High School)
Fire Safety For Consumers

Scope and Sequence for Fire and

	Kindergarten	First Grade	Second Grade	Third Grade	Fourth Grade
General Objectives	basic awareness of fire and burn dangers; simple actions to reduce injury; parent involvement	basic knowledge of fire and burn hazards; basic understanding of simple injury reduction; continuation of parent involvement	basic understanding of how to prevent and put out fires; greater self-direction to prevent and react to fire, smoke or burn situations	hazards and safe storage of flammable liquids, positive actions to prevent fires and burns or to reduce injuries, especially related to metallic objects	principles of extinguishing fires; issues related to peer pressure related to fire setting; self-motivation to effect changes with family involvement; role of fire service in the community
Science of Fire understands and analyzes facts about fire	classifies "good" and "bad" fires and heat sources *25(a)3A, 26(a)1C	identifies three elements of fire triangle *25(b)2C lists and classifies things that do and do not burn *25(b)3B,5B	explains putting out a fire as removing or controlling one element *25(c)3B, 26(c)1C defines and gives examples of controlled and uncontrolled fires *25(c)3B, 26(c)1C	defines and gives examples of combustible, noncombustible, flammable and nonflammable materials, with relation to gas, liquid and solid states *25(d)7A, **3.1,3.5	interprets three elements of fire to explain how to prevent and extinguish fires *25(a)8B, 26(a)1G describes characteristics of heated gases from fires *25(a)4B, 26(a)1G
Safety Communication knows and applies terms and symbols associated with fire and burn safety	identifies EXIT signs in schools and public buildings *29(a)1E identifies "hot" and "cold" symbols on faucets *26(a)1C, 29(a)1E				
Injury Reduction knows, performs and analyzes techniques to reduce fire and burn injuries	demonstrates and practices rolling on ground in case of clothing fire *25(a)3C, 26(a)1C, 29(a)1D demonstrates and practices crawling on ground in smoke of fire situations *25(a)3C, 26(a)1D	demonstrates cooling a burn with cool water *25(b)5B, 26(b)1C, **1.1 demonstrates and describes crawling in suspected smoke or fire situation because smoke rises *25(b)2C, 26(b)1C, **1.1 demonstrates and describes rolling to put out clothes fire *26(b)1C, **1.1	explains using cool water to reduce burn injury *25(c)7B, 26(c)1C explains that rolling on ground keeps air from fire on clothes *25(c)7B, 26(c)1C explains that smoke and gases from fire can affect thinking *25(c)7B, 26(c)1C	explains injury reduction skills to others through song, dance, story, demonstration, etc. *26(d)1D,1E	lists and describes effects of toxic gases in smoke and fire byproducts *25(e)7B, 26(e)1G, ** 1.4
Hazard Recognition recognizes fire and burn hazards at home, play and work	classifies hot and cold objects, including cigarettes and appliances *25(a)1A,3A, 26(a)1C identifies smoking cigarettes as a hazard to cause burns and to start fires *26(a)1D	distinguishes electrical objects, a potential heat sources, as having cords *25(b)3B,4B identifies home and community as city or rural and types of related fire risk *25(b)6D, 29(b)5A, **1.6	predicts how electrical appliances can become hazards through carelessness, misuse, disrepair, including unattended cooking *25(c)6A, 26(c)1C identifies special holiday hazards related to family customs or traditions *26(c)1C, 29(c)6B	classifies metallic and non-metallic objects *25(d)3B, **3.6 distinguishes metallic objects as contact burn hazards *25(d)6B,8A, 26(d)1E identifies positive behaviors with hazardous appliances *26(d)1E	describes types of hazards from discarded cigarettes *26(e)1F
Hazard Reduction applies and values techniques for reducing or eliminating fire and burn hazards	states rule to stay aware from hot objects *26(a)1C, 29(a)1A tells parents, "Keep me safe from fire" *29(a)1B	describes or illustrates need for smokers to have watchers *25(b)7B, 26(b)1D encourages parents to conduct home inspection using provided checklist *25(b)7B, 26(b)1C,2B	describes benefit of family working together to reduce fire and burn hazards *26(c)2B writes at least five rules for safe behavior *26(c)1C	conducts inspection for safe flammable storage with parents using provided checklist *26(d)1E,2B identifies fire safety for holidays in each month *26(d)1E	demonstrates reactions to hazardous situations, including removal of fire hazards *26(a)1F identifies safety features in school, home and other buildings *26(a)1F,1G
Escapes And Drills knows and applies methods of fire and smoke warnings and escape and exit techniques; values the importance of smoke detectors and escape planning	demonstrates actions in school exit drills *26(a)1C, 29(a)1D	identifies smoke alarm as warning to get out *26(b)1C draws map of home with two ways out for everyone *25(b)4D states steps and rules for school exit drill *26(b)1C, 29(b)4B	describes general guidelines for smoke detector placement (each level, outside bedrooms) *26(c)1C describes or illustrates alternate ways out of a building *26(c)1C organizes home drill *26(c)1C,2B, 29(c)1C	gives details of action at home alone in suspected fire situations *26(d)1D assists parent in maintaining smoke detector using provided guidelines *25(d)7B, 26(d)1E,2B identifies low battery warning on smoke detector *26(d) 1D	explains need for exit plans and drills, especially at home *25(a)6A, 26(a)1F,2C, 29(a)1A, **1.8
Matches And Firesetting recognizes hazards of matches, lighters and other firesetting instruments; knows and values techniques for reducing intentional fires	demonstrates telling an adult if he/she sees matches *26(a)1C, 29(a)1A	describes or illustrates matches as tools for adults *26(b)1C	describes why matches are not toys *26(c)1C	describes how matches can be used safely *26(d)1E	demonstrates resisting peer pressure related to fire, matches and smoking *29(a)1C, **1.8
Reporting A Fire knows and applies appropriate methods of reporting suspected fire or smoke situations	demonstrates telling an adult about smoke or fires *25(a)3C, 26(a)1C	demonstrates yelling and other signals to warn others *25(b)1C memorizes emergency telephone number *26(b)1C	demonstrates dialing emergency telephone number *26(c)1C demonstrates giving name and address *26(c)1C	describes or demonstrates what to report in an emergency situation *26(d)1D	describes local locations and uses of fire alarm boxes *26(e)1F
Care Giving understands and values appropriate supervision of and intervention for other people, especially young children and older adults	tells parents to give fire safety rules to baby-sitter *26(a)1C			writes rules for baby-sitter or care giver for family, with parents' assistance and consideration of ages of family members *26(d)2B, 29(d)2A, 6B	
The Fire Service understands and values the role of the fire service in preventing and suppressing fires	identifies fire fighters and other fire service workers as friends *29(a)1B	describes fire fighter as community helper who helps prevent fires and who puts out fires *25(b)7C, 29(b)4C, **1.7	identifies ways that fire fighters are involved in fire suppression and prevention *29(c)4A		lists the four primary services provided by the fire services *26(a)3A describes fire department's role in helping the community stay safe and healthy *26(a)3A, **1.7
Outdoor Safety knows and applies techniques for reducing outdoor fires and injuries from outdoor fire and burn hazards	demonstrates or illustrates staying away from campfire, trash burning, etc. *26(a)1C	distinguishes how outdoor fires are different from building fires *25(b)6D, 26(b)3, **1.6	identifies outdoor electrical hazards (storms, tools, campfires) *25(c)4B, 26(c)3A, **2.9		describes safe practices with fireworks *29(a)3B, **1.6 writes at least five rules for outdoor fire safety *26(a)3B

Burn Prevention Education In Texas

Fifth Grade	Sixth Grade	Seventh Grade	Eighth Grade	Health	Economics
heating equipment safety; impact of fire on outdoor environment and methods to reduce that impact; first aid for burns; personal relationship to community fire safety	fire physics; electrical hazards and responding to those hazards; continuation of first aid for burns	responsible decision-making regarding fire and burn hazards, including peer pressure related to fire risks; preparation for and reaction to possible fire situations	technical aspects of fire hazards and detection; fire hazards outside the home	review of fire and burn prevention techniques and emergency actions; awareness of needs of all age groups; smoking and flammable liquids	awareness of adult responsibilities to preserve family, property and economy; preparation for maintaining one's own home; U.S history of fire and burn incidents
	lists types of heat and fuel to define classes of fire *25(g)2D, **3.1 describes fourth element of fire, uninhibited chemical reactions *25(g)4B, **3.1 describes three types of fire extinguishers *26(g)1H		defines and describes flash point, flash fire, flammability of construction and clothing types *44(b)7D		
analyzes product advertisements for fire and burn safety information *26(f)2A		analyzes product labels for fire safety, including flammable or combustible warnings, nonflammable labels *44(a)11C communicates hazards of smoking, using written, illustration or oral format *48(a)1D		identifies and describes cigarette health messages and writes cigarette fire safety messages *65(a)1A,1D,2A identifies and describes flammable liquid warnings on home-use products, cleaners, gasoline, etc. *65(a)1E	defines terminology relating to fire insurance and home safety (detectors, sprinklers, etc.) *69-4D
describes three classes of burns and first aid for each *26(f)1G,2D	classifies six types of burns by causes (contact, UV, chemical, etc.) *26(g)2D describes special first aid actions for burns other than contact burns *26(g)2D			lists best actions in suspected fire or smoke situations and first aid for three types of burns *65(a)1E	
explains hazards of heating equipment, including safety considerations such as UL inspection certification and proper placement *25(f)7B, 26(f)1H, **2.6 analyzes safety of alternative heating 25(f)6E, 26(f)1H), **2.6	describes why electricity and electrical appliances are fire and burn hazards, relating amount of energy used by various appliances to their risk *25(g)6D, **3.4		lists at least 10 typical hazards in the workplace, including industrial, retail and office *44(b)3	describes role of carelessness in fires and burn injuries, including cigarettes, heating and cooking *65(a)1B,1D,1G organizes and conducts comprehensive home inspection, including outdoors and nonliving areas *65(a)1B,1E,1G	describes the economic impact of fires and related casualties in the U.S. *69-1B,1G
conducts inspection of home heating equipment with parents to check for safe usage *25(f)7B, 26(f)1H, **2.6 gives examples of correcting holiday hazards *26(f)1H	develops holiday checklist that applies fire safety rules *25(g)7B, 26(g)1H,2C	writes at least 10 rules for smokers *44(a)11B,C describes safe practices with fire hazards commonly found in home or outdoors *44(a)11C develops and implements home survey instrument *44(a)11C	describes desire to be safe and to keep others safe *44(b)7D	organizes and conducts comprehensive home clean-up, including outdoors and nonliving areas *65(a)1B,1E,1G	describes fire and burn safety responsibilities of consumers and residents *69-1G,4A identifies hazard reduction efforts of various organizations, agencies *69-2A, 4B
evaluates school exit drill *25(f)2D,8A, 26(f)1H (relate to vol fd)	analyzes prepared maps of other locations to show appropriate detector placement *26(g)1H,2C draws map of home to scale to show smoke detector placement and home exit plan *25(g)7B, 26(g)1H,2C	describes or demonstrates what to do in unusual circumstances *44(a)11C,48(a)4I organizes an obstructed drill at school or home *48(a)4J	describes basic function of two types of smoke detectors *48(c)3D describes basic function of sprinklers, including residential heat response sprinklers *48(c)3D surveys and maintains smoke detectors at home *48(c)3D		lists types of building code requirements for detectors, sprinklers, exits *69-2A,4B,4D
describes hazards of intentional fires, especially relating to waste and loss of resources *29(f)2B		describes alternative behaviors to peer pressure related to firesetting and smoking *44(a)11A, 48(a)1D identifies arson as a crime *48(a)2L writes at least five rules for using matches and lighters *44(a)11B,C			explains effects of business fire on community and production *69-1B,1E
identifies hazard of false alarms, especially relating to wasting resources *29(f)2B	prepares time line in response to fire sighting and reporting *25(g)4E, 29(g)7A explains why to report smoke or suspected fire promptly *25(g)6D, 26(g)1H	describes how to discourage false alarms *44(a)11C,48(a)2L			
		outlines and details duties of baby-sitter *44(a)11C, 48(a)4I,J		describes general accident prevention and wellness needs of children, handicapped and senior citizens *65(a)1G,3E	describes fire and burn safety responsibilities of citizens in their roles as caregivers or providers *69-4A
describes role of volunteer fire department in the community *26(f)3A	describes professionals involved in emergency response and burn care *26(g)3A			describes at least five community health services and other resources that assist in community fire safety *65(a)3D	
describes impact of grass and tree fires on land forms *25(f)6E, **2.2 lists steps in safe procedures for burning debris and cooking on charcoal, fire, grill *26(f)3B amples and application of ing trash and brush to reduce fire hazard *26(f)3B	describes dangers of high tension wires *26(g)1H, **3.4	lists comprehensive camping safety rules *44(a)4B	lists comprehensive rules for outdoor safety *44(b)7D investigates community laws on fireworks *44(b)7D	describes fire safety precautions related to gasoline, autos, outdoor tools and discarded cigarettes *65(a)1G	

	Kindergarten	First Grade	Second Grade	Third Grade	Fourth Grade
* **Essential Elements** Current essential elements as defined by Chapter 75 of the Texas Education Code that apply: The student shall be provided opportunities to:	§75.25 (a) 1A. use comparisons: ... hot/cold. §75.25 (a) 3A. classify objects by comparing similarities and differences. §75.25 (a) 3C. arrange events in sequential order. §75.26 (a) 1C. recognize hazards in the environment and acquire knowledge and skills needed to avoid injuries and to prevent accidents. §75.26 (a) 1D. recognize negative effects of ... tobacco. §75.29 (a) 1A. identify examples of right and wrong behavior. §75.29 (a) 1B. discuss ways people can help each other. §75.29 (a) 1D. practice rules of safety. §75.29 (a) 1E. recognize safety symbols.	§75.25 (b) 2C. observe properties of objects, organisms, and events in the environment. §75.25 (b) 3B. classify objects, organisms, actions, and events from the environment according to similarities and differences. §75.25 (b) 4B. describe objects, organisms, and events from the environment. §75.25 (b) 4D. record data and interpret the arrangement of data on picture graphs, bar graphs, and maps. §75.25 (b) 5B. compare temperature of objects. §75.25 (b) 6D. draw conclusions from observed data. §75.25 (b) 7B. relate objects and activities to daily life §75.25 (b) 7C. relate science to careers. §75.26 (b) 1C. recognize hazards in the environment, and acquire knowledge and skills needed to avoid injury and to prevent accidents §75.26 (b) 1D. recognize negative effects of tobacco §75.26 (b) 2B. recognize the health of the family depends upon contributions of each of its members §75.26 (b) 3. recognize interdependence of people and the environment, and recognize personal responsibility for protecting the environment. §75.29 (b) 4B. identify school and community rules (laws) §75.29 (b) 4C identify authority figures in ... community §75.29 (b) 5A. know geographical location of home in relation to school and community	§75.25 (c) 3B. classify matter and forces, organisms, actions, and events from the environment according to similarities and differences. §75.25 (c) 4B. describe objects, organisms, and events from the environment. §75.25 (c) 6A. predict the outcomes of actions based on experience or data. §75.25(c)7B. relate objects, science principles, and activities to daily life. §75.26 (c) 1C. recognize hazards in the environment, and acquire knowledge and skills needed to avoid injury and to prevent accidents §75.26 (c) 2B. recognize the health of the family depends upon contributions of each of its members §75.26 (c) 3A. recognize interdependence of people and the environment, and recognize personal responsibility for protecting the environment §75.29 (c) 1C. volunteer for leadership §75.29 (c) 4A. identify some government services in the community §75.29 (c) 6B. describe family traditions and customs	§75. 25 (d) 6A. Use observations to form definitions of objects, actions, organisms, events, and processes. §75. 26 (d) 2B. recognize the health of the family depends upon contributions of each of its members §75.25 (d) 6B. state generalizations about similarities and differences among objects, organisms, and events. §75.25 (d) 7A. compare and contrast objects, organisms, and events. §75.25 (d) 7B. relate classroom objects, science principles, and activities to daily life §75.25(d) 3B. classify matter and forces, organisms, action, and events from the environment according to similarities and differences. §75.26 (d) 1D. practice general emergency procedures §75.26 (d) 1E. recognize hazards in the environment, and acquire knowledge and skills needed to avoid injury and to prevent accidents §75.29 (d) 2A. describe ways a community satisfies needs for food, clothing and shelter §75.29 (d) 6B. describe how individuals and families change over time	§75. 26 (e) 3B. recognize interdependence of people and the environment, and recognize personal responsibility for protecting the environment §75. 29 (e) 1A. accept the responsibilities of membership in various groups §75.25 (e) 6B. describe objects, organisms, and events from the environment. §75.25 (e) 6A. predict the outcomes of actions based on experience or data. §75.25 (e) 7B. relate classroom objects, science principles, and activities to daily life. §75.25 (e) 8B. state relationships among objects, organisms, and events using operational definitions. §75.26 (e) 1F. practice general emergency procedures §75.26 (e) 1G. recognize hazards in the environment, and acquire knowledge and skills needed to avoid injury and to prevent accidents §75.26 (e) 2C. recognize the health of the family depends upon contributions of each of its members §75.26 (e) 3A. recognize scope of services provided by community health agencies §75.29 (e) 1C. explain how groups influence individual behavior.
** **Science Content** content from the sciences that shall be emphasized at the grade level shall include:		Life Science 1.1 basic needs and life processes 1.6 ecology ... interdependence of living things. 1.7 application of life science to careers and everyday life.	Earth Science 2.9 human responsibility regarding earth science phenomena ... natural resources.	Physical Science 3.1 energy ... forms of energy ... forms of energy ... sources of energy. 3.5 phases of matter: solids, liquid and gas. 3.6 structure of matter ... families of elements: metals and nonmetals....	Life Sciences 1.4 structure and function of the human body. 1.6 ecology ... interdependence of living things. 1.7 application of life science to careers and everyday life. 1.8 human responsibility regarding life science phenomena

03/09/93

Fifth Grade	Sixth Grade	Seventh Grade	Eighth Grade	Health	Economics
§75.25 (f) 2D. observe phenomena resulting from the life, earth, and physical sciences §75.25 (f) 6A. predict the outcomes of actions based on experience or data §75.25 (f) 6E. draw conclusions from observed data. §75.25 (f) 7B. relate classroom objects, science principles, and activities to daily life. §75.26 (f) 1G. identify ways to care for the principal body systems §75.26 (f) 1H. recognize hazards in the environment, and acquire knowledge and skills needed to avoid injury and to prevent accidents §75.26 (f) 2A. recognize benefits and limitations of advertising as it relates to selection of health ... products §75.26 (f) 2D. recognize need for first aid §75.26 (f) 3A. identify locally available voluntary health agencies §75.26 (f) 3B. recognize interdependence of people and the environment, and recognize personal responsibility for protecting the environment §75.29 (f) 2B. explain why conservation of economic resources is important	§75.25 (g) 2D. observe phenomena and apply knowledge of theories, facts, and concepts from the life, earth, and physical sciences §75.25 (g) 4B. name and describe objects, organisms, and events from the environment §75.25 (g) 4E. record data and interpret the arrangement of data on graphs, tables, and other visuals §75.25 (g) 6D. form and state generalizations about similarities and differences among observed objects, organisms, events, and phenomena §75.25 (g) 7B. relate classroom objects, science principles and activities to daily life §75.26 (g) 1F. identify factors, including peer pressure, that contribute to ... tobacco ... abuse and methods of prevention §75.26 (g) 1H. recognize hazards in the environment, and acquire knowledge and skills needed to avoid injury and to prevent accidents §75.26 (g) 2C. recognize the health of the family depends upon contributions of each of its members §75.26 (g) 2D. identify basic emergency treatment §75.26 (g) 3A. relate the system of health services provided by government to the health needs of people §75.29 (g) 7A. make and interpret time lines	§75. 48 (a) 1D. recognize that individuals must accept the consequences of their decisions §75.44 (a) 11B. investigate the range of effects on personal health and safety from the use of ... tobacco §75.44 (a) 11C. discriminate between responsible and irresponsible actions that affect personal health §75.44 (a) 4B. describe ecological relationships in the environment §75.44(a) 11A. determine alternate courses of action when one is being pressured concerning use of ... tobacco §75.48 (a) 2L. support the rules and laws of one's school, community, state and nation §75.48 (a) 4I. develop criteria for making judgments §75.48 (a) 4J. use problem-solving skills	§75.44 (b) 3. classify objects or events according to similarities and differences §75.44 (b) 7D. contrast human activities that affect the natural environment §75.48 (c) 3D. analyze the impact of technological innovations on business, industry and agriculture (in U.S.)	§75.65 (a) 1A. understand the ... of body systems and their functions §75.65 (a) 1B. relate personal behavior to wellness §75.65 (a) 1D. demonstrate responsible behavior concerning ... tobacco §75.65 (a) 1E. exhibit skills in accident prevention, injury control and emergency action §75.65 (a) 1G. identify components of comprehensive accident prevention programs §75.65 (a) 2A. analyze messages of advertising for health resources and activities §75.65 (a) 3D. describe the wide range of resources designed to protect and promote well-being of people §75.65 (a) 3E. investigate current health issues	§75.69 1B. analyze how supply and demand affect prices §75.69 1E. analyze the roles of economic incentives, voluntary exchange, private property rights and competition §75.69 1G. examine the roles of labor and consumers in the American free enterprise system §75.69 2A. understand how the government both protects and regulates the operations of the market system §75.69 4A. describe the rights and responsibilities of consumers §75.69 4B. identify ... agencies that provide consumer protection §75.69 4D. define basic consumer terminology in the areas of credit, insurance, budgeting and home ownership or leasing
Earth Science 2.2 geology ... agents of weathering, erosion and deposition. 2.8 meteorology ... effects of weather change and severe weather types ... effects of weather on human activities.	**Physical Science** 3.1 energy ... kinds of energy ... sources of energy ... transformation of energy from one form to another. 3.4 electricity and magnetism: charges, circuits, properties, electromagnetism, etc.				

Introduction

Introduction

Why teach fire and burn prevention?

Each year during the past decade, about 300 Texans have died in fires. The Texas Commission on Fire Protection is committed to reducing this alarming statistic. Analysis of fire statistics shows that the vast majority of fires — and the resulting fire deaths — could have been prevented. Regretfully, most people do not know or practice even simple actions that can prevent fires and burns.

The Texas Commission on Fire Protection believes the key to reducing fires and fire deaths is education. Fire safety education has traditionally been concentrated in elementary school observances of Fire Prevention Week. While these observances can produce effective results, thoughtful analysis of the fire problem and fire safety educational programs shows that a more comprehensive, age-appropriate approach to fire safety education can multiply its benefits.

Recognizing the limits of classroom instruction time, the Texas Commission on Fire Protection has examined the Texas essential elements of instruction to determine the most appropriate topics with which to integrate fire prevention and fire safety. Teachers from across the state have provided feedback on topics appropriate for each grade level, kindergarten through high school.

The result of this extensive research is "Fire Safety for Texans," a series of curriculum guides teaching fire and burn prevention. Each grade-level program has been coordinated with essential elements in that grade and with the unique specific fire safety needs of that age group. The lesson plans have been field tested in classrooms across the state. On average, students who have been taught using these materials score 26 percent higher than students in control groups.

As you use this guide, you and teachers in other grade levels will be part of a continuum of fire safety education spanning all grades. The Texas Commission on Fire Protection believes this continuum will help create a generation of Texans who will be fire-safety aware. In turn, all Texans can benefit from a decrease in the number of needless fire deaths and an increase in safer homes and worksites — a benefit we all deserve.

This Booklet

This booklet, "Charged Up For Fire Safety," is specifically designed for fifth-grade students. The following sections give specific information on the essential elements applicable to fire and burn prevention and on the age-specific needs of fifth-grade students related to fires and burns. You will also find additional information on the format and materials found in this booklet.

This booklet has three sections:

- **Lesson Plans.** This section includes all steps in the lesson cycle.
- **Teacher Materials.** This section includes all teaching aids and tests.
- **Student Materials — Duplicating Masters.** This section includes master copies of materials to be used by students.

General Objectives: To explore heating equipment safety

To analyze the impact of fire on outdoor environment and methods to reduce that impact

To develop awareness of first aid for burns

To explore one's personal relationship to community fire safety

Essential Elements: The student will be provided opportunities to:

§75.25 (f) 2D. observe phenomena resulting from the life, earth, and physical sciences.

§75.25 (f) 6A. predict the outcomes of actions based on experience or data.

§75.25 (f) 6E. draw conclusions from observed data.

§75.25 (f) 7B. relate classroom objects, science principles, and activities to daily life.

§75.26 (f) 1G. identify ways to care for the principal body systems.

§75.26 (f) 1H. recognize hazards in the environment, and acquire knowledge and skills needed to avoid injury and to prevent accidents.

§75.26 (f) 2A. recognize benefits and limitations of advertising as it relates to selection of health ... products.

§75.26 (f) 2D. recognize need for first aid.

§75.26 (f) 3A. identify locally available voluntary health agencies.

§75.26 (f) 3B. recognize interdependence of people and the environment, and recognize personal responsibility for protecting the environment.

§75.29 (f) 2B. explain why conservation of economic resources is important.

** **Science Content:** Content from the sciences that shall be emphasized at the grade level shall include:

Earth Science

2.2 geology ... agents of weathering, erosion and deposition.

2.6 meteorology ... effects of weather change and severe weather types ... effects of weather on human activities.

Background: Age Profile

Stage of industry vs. inferiority, which means the child needs to stay constructively busy. Because many differences in abilities are becoming more evident, comparisons among children should be avoided.

Areas of development include neuromuscular and social. The child is developing many new physical skills, both gross and fine motor skills. He is making a social move from the home into peer groups and school. He is developing his own self-attitudes and seeks significant human relationships.

Operating under the morality of cooperation, the child sees rules as mutual agreements made by those affected and involved in the situation. She tends to obey rules out of respect. The child can understand causes and consequences of actions.

The child is capable of concrete operations, which means he can solve a variety of problems using concrete objects, and may be capable of formal operations, in which concrete objects are no longer needed for problem solving. He must be active in the instructional process, and activities and materials must be relevant to the child's life or environment. Instruction will be more effective if it involves both the affective and cognitive domains.

The fifth-grader is interested in social, occupational and civic matters. She is becoming able to move from the simple to complex, concrete to abstract, undifferentiated to differentiated, discrete to organized.

Fire And Burn Hazards

Curiosity about fires — playing with matches and lighters, candles, fireplace, heaters, other locations where the child can observe a flame; overconfidence in dealing with fires.

Scalds — cooking; tap water; hot foods, especially heated sweet foods.

Appliances — cooking at stoves or with microwave ovens, especially unsupervised; overconfidence in using appliances, such as irons, toasters, etc.

Clothing ignition — playing with matches; flammable clothing and costumes; walking or sleeping too close to heater or other open flame; knowing how to reduce injury.

Outdoor hazards — campfires and barbecues; mini-bikes and lawn mowers; fireworks; high-tension wires.

Other — flammable liquids; fires caused by parents' smoking; injury from smoke and fire gases; knowing how to escape from fire.

Teacher's Note On Materials: Illustrations and activity sheets in this booklet are intended to serve as masters. Photocopy, then use the photocopy as directed.

Pre-Test and Post-Test: Administer the pre-test prior to the first lesson and the post-test after the final lesson.

Teacher's Note on Closure Activities: Some activities included in the closure phase of the lesson cycle may be effectively used in the next lesson's focus activity.

Key To Icons: The following icons can be used to easily identify activities in the lesson plans:

 Lesson objectives

 Focus and closure

 Creative group activity, including role playing

 Lecture

 Demonstration

 Group problem-solving activity

 Answering questions

 Guest presenter

 Investigation or research

 Creative writing activity

 Cut-and-paste activity

 Group discussion

 Drawing, artwork or illustration

Lesson Plans

LESSON ONE:

Charged Up For Home Safety

Goal: *To explore how to use heating equipment safely in the home*

Objectives: The student will:

- explain hazards of heating equipment, including safety considerations such as UL inspection certification and proper placement *25(f)7B, 26(f)1H, **2.6
- analyze safety of alternative heating 25(f)6E, 26(f)1H), **2.6
- conduct inspection of home heating equipment with parents to check for safe usage *25(f)7B, 26(f)1H, **2.6

Materials: Pre-tests (p. 17); "Warm, But Not Too Hot" activity sheet (p. 29); "Charged Up For Home Safety" investigation activity (p. 30); answer keys (p. 25).

Focus: Administer pre-test.

Introduce unit by discussing energy. Have students list some possible sources of energy (electric power plants, from sun, from burning logs, "brain power"). Discuss ways this energy can be used. Tell students that their knowledge of fire prevention gives them energy to create a safer environment for themselves, their friends and their families.

Present general objectives:

To explore heating equipment safety

To analyze the impact of fire on outdoor environment and methods to reduce that impact

To develop awareness of first aid for burns

To explore one's personal relationship to community fire safety

Present lesson objectives (see paragraph above).

Presentation Of Content: *Teacher:* "People become very interested in energy when winter comes. They use energy for certain types of equipment to help stay warm. What are these? (Heaters) Why do we use heaters? (To stay warm.) What kinds of heaters do people use? (List on chalkboard.)"

Discuss types of heating equipment used in the classroom.

Review three elements of fire: heat, fuel and oxygen. Point out that heaters have all three elements. Ask what would happen if something that could burn — a fuel — gets too close to a heater. (It would catch fire.)

Guided Practice: Distribute "Warm, But Not Too Hot" activity sheet. Have students read the description of each type of heater, then cut out and paste the heaters in the correct location. Have students draw a circle around the type that is least likely to cause a fire and put on X on any heater that could easily cause a fire or burn. (Answers might vary, depending on students' home environments.) Have students explain their selections.

Independent Practice: Distribute "Charged Up For Home Safety" activity sheet. Have the students read the instructions, then take home to complete the activity.

NOTE: Base evaluation on student's willingness to participate in improving their home safety. Do not evaluate on the bases of the responses to the survey.

Reteaching: Invite the school custodian or safety director to tell the students about heating equipment used in the school. Have him/her describe its power or fuel source, then describe what safety precautions are used to prevent fires.

Enrichment: Have students contact a heating equipment maintenance company. Have them ask a company representative to describe his/her job.

Closure: Have students describe their experiences with the heating equipment inspection. Ask students to summarize what they have learned about how the winter can influence their lives.

Introduce the next lesson by telling students that they will explore ways to prevent fires in another environments — the outdoors.

LESSON TWO:

Charged Up To Save The Outdoors

Goal: *To apply knowledge of outdoor fire prevention to conservation of natural resources*

Objectives: The student will:

- describe impact of grass and tree fires on land forms *25(f)6E, **2.2
- list steps in safe procedures for burning debris and cooking on charcoal, campfire, grill *26(f)3B
- give examples and application of cleaning trash and brush to reduce fire hazard *26(f)3B

Materials: "Who Protects The Great Outdoors" illustration (p. 18); "What's Going To Happen?" illustration (p. 19); writing paper.

Focus: Display the "Who Protects The Great Outdoors" illustration.

Teacher: "Weather affects our lives very much. In our last lesson, we talked about how people adapt to cold weather. We can even protect ourselves from storms and rain. But the grass, trees and soil cannot protection themselves, so we must do all we can to make sure that things we do don't cause the outdoors any more harm."

Outline lesson objectives (paragraph above).

Presentation Of Content: Display the "What's Going To Happen?" illustration. Have students describe what they see. Tell them to imagine that vacationers left trash around house then left trash burning.

Divide students into small groups. In groups, have students predict what will happen to the land after the fire. (The house had to be rebuilt. Rains eroded the soil so nothing could grow. The animals who lived in the nearby woods had no place to live. Other reasonable answers may be accepted.)

Guided Practice: In groups, have students list what the people should have done to prevent unintentional fires caused by useful outdoor fires. Have each group select its own specific topic — building campfires, cooking on a campfire or grill, or burning trash — then write four steps for preventing an unintentional fire.

Have groups exchange and compare lists. Note any similarities.

Suggested responses:

Building campfires

1. Clear a large area of all grass and leaves.
2. Circle the area with rocks, or dig a shallow hole.
3. Arrange logs (or other fuel), and have an adult light the campfire.
4. Completely put out the fire with water.

Cooking on a grill (charcoal or gas)

1. Have an adult check the grill to be sure it's safe.
2. Follow directions when operating the grill.
3. Never operate indoors, only outdoors with little or no wind.
4. Never leave cooking unattended.

Burning trash

1. Clear a large area of grass and brush.
2. Use a barrel with a screen lid.
3. Burn only when there is no wind.
4. Put the fire out completely.

Accept other reasonable responses.

Independent Practice: Tell students that buildings with trees, brush or grass near them can easily catch fire if there is a grass or brush fire. Discussion might include the California brush fires of 1991 and 1992 that destroyed hundreds of expensive homes.

Have students look for places with trash and brush close to a building. Have them write a paragraph describing how the area should be cleaned and what might happen if a fire starts because the area was not cleared.

Evaluate students on their awareness of outdoor fire hazards and the dangers of allowing unsafe conditions to continue.

Reteaching: List the following on the chalkboard or a transparency.

1. No wind.
2. Clear the area.
3. Have water ready.
4. Put out any fire completely.

Have students go through the list and describe how it might apply to all the type of fires discussed in Guided Practice.

Enrichment: Have students research the California fires that began as small brush fires and eventually destroyed homes and property worth several million dollars.

Invite a fire department representative to discuss the wildland-urban interface in your area.

Closure: Briefly discuss what students found during the Independent Practice activity. Encourage students to share the activity with their families, especially if they notice fire hazards near their homes.

Teacher: "In the first two lessons, we have learned about two important areas of fire safety — heaters and the outdoors. In our next lesson, we will study other ways to help prevent fires."

LESSON THREE:

Fire Hurts The Entire Community

Goal: *To explore how each person and family can hurt community safety, especially through negative actions such as false alarms or arson*

Objectives: The student will:

- identify hazard of false alarms, especially relating to wasting resources *29(f)2B
- describe hazards of intentional fires, especially relating to waste and loss of resources *29(f)2B

Materials: "Our Community" overhead transparency (p. 20); "Fire Hurts Us All" group discussion activity (p. 31); materials to make illustrations and collages; answer key (p. 25).

Focus: Walk around the room, putting students' books, pencils and other small items into a box and saying, "Hey, you don't need that. No, you don't need that. This is fun ... You don't need that either."

Ask students how they felt when their items were taken (sad, angry, frustrated).

Teacher: "Fire protection professionals feel the same way when they feel that their services are being wasted. In this lesson, we'll learn ways to help our community by stopping false alarms and arson."

Outline lesson objectives (see paragraph above).

Presentation Of Content: Show "Our Community" overhead transparency.

Teacher: "People in communities depend on each other. We all contribute to the community through our taxes to make our community a safe and pleasant place to live. The community spends its money on needed services, such as the police and fire departments. It spends some money on enjoyable services, such as museums and parks.

"Fire departments are expensive. Fire fighters must answer every call, and every call costs money. Even when the call is a false alarm, the fire department must answer it and money is spent. When more money must be spent on the fire department, less money can be spent on non-vital services such as the park.

"Everyone in the community pays taxes — shoppers, business owners, homeowners. When a store burns, the business owner can't sell any products, the workers can't earn their money, and the business owner might not be able to pay his taxes. That business fire caused less taxes to be going to the community and MORE taxes have to come from the rest of the community."

Guided Practice: Distribute "Fire Hurts Us All."

Option: Divide students into small groups to complete this activity.

Read and discuss each paragraph. In each item, emphasize that cities and companies are very concerned about how their money is used.

Independent Practice: Have students prepare illustrations or collages that tell (1) what arson or a false alarm is or (2) why arson and false alarms are wastes. Students may clip headlines and pictures from newspapers and magazines to use as examples in their illustrations.

Evaluate students on their awareness that arson and false alarms are crimes and wasteful for the community.

Reteaching: Invite a fire department representative to discuss false alarms. Ask the representative to describe how a fire department response to fire emergency calls.

Invite an arson investigator or juvenile fire setter counselor to discuss the problems caused by children who play with matches or fire.

Enrichment: Have the students conduct a poll of their friends or classmates to find out their opinions of arson and false alarms. Have them prepare a chart to show their findings.

Post the illustration created by the students in the Independent Practice activity in the school or other public area.

Closure: Ask students to define arson and false alarms. Ask how arson and false alarms hurt a community (by wasting resources). Have students share their experiences in creating their collages/illustrations.

Teacher: "In this lesson, we learned how the actions of one person can hurt the community. In our next lesson, we will look at two ways that each of us can help our community become more fire safe."

LESSON FOUR:

We All Contribute To Community Safety

Goal: *To explore how each person can help community safety, especially through fire exit drills and volunteer work*

Objectives: The student will:

- describe role of volunteer fire department in the community *26(f)3A
- evaluate school exit drill *25(f)2D,6A, 26(f)1H

Materials: "We're Ready" overhead transparency (p. 21); "We're Ready" discussion activity (p. 32); "Fire Exit Drill In Action" role-playing cards (p. 22); "How Prepared Are We?" observation activity (p. 33); answer key (p. 26).

Focus: Put chorus of "We're Ready" on chalkboard, or if using overhead, display with only chorus showing. Have all students read aloud, with beat as a rap verse. Tell students that in this lesson they'll learn how to be ready.

Outline lesson objective (see paragraph above).

Presentation Of Content: Distribute "We're Ready" activity sheet. Re-read chorus, and answer question. Read first verse, then read and discuss questions. Point out that "word from the top" means special instructions from the teacher. Add that they must go to their assigned areas and wait.

Read second verse. Explain which type of fire department protects the local community. Point out that many students who live in rural areas have a volunteer fire department. Emphasize that volunteer fire fighters are not paid. Discuss why volunteers might work without pay (They know they help their community and friends. They want to contribute to an important organization.)

Guided Practice: *Role-Playing Activity:* Divide students into groups of six to eight. Distribute role-playing cards. Have students read the cards, then act out what the cards describe. Emphasize the need to work together willingly, as members of a volunteer fire department do, while reinforcing effective habits for fire exit drills.

Allow 10-15 minutes for this activity, allowing students to exchange roles and re-play the situation. Then have students describe their experiences in various roles.

Independent Practice: Distribute "How Prepared Are We?" Based on when students will do the evaluations, provide appropriate guidance on answering the questions.

NOTE: During this activity, students will evaluate a fire exit drill in the school. The teacher may select one of the following options:

1. Have students look back at their most recent schoolwide drill.
2. Schedule the activity for the next school exit drill.
3. Conduct a fire exit drill for his/her own classroom only and have students evaluate themselves.

4. Work with another teacher to hold individual classroom drills and have students evaluate the other class.

Reteaching: Invite a fire safety instructor or fire fighter to discuss what can happen if students do not participate properly in a fire exit drill. Ask the fire fighter to observe and evaluate a fire exit drill.

Enrichment: Have students organize their own "volunteer fire department" in the school. Encourage them to explore various roles or positions, such as fire marshal, inspector and monitor, to help the campus administration conduct fire exit drills.

Invite the chief or a member of a local volunteer fire department to describe qualifications for becoming a volunteer fire fighter.

Closure: Ask students to share their evaluations of the fire exit drill. Have them point out positive actions of other students, as well as actions that need improvement. Ask students if they will make any changes themselves in how they act during exit drills. Prepare for final lesson by telling the students that they will be learning about what to do in another emergency situation — suffering a burn.

LESSON FIVE:

Fire Safety For Yourself

Goal: *To examine appropriate first aid for burns and to examine product safety related to fires and burns*

Objectives: The student will:

- describes three classes of burns and first aid for each *26(f)1G,2D
- analyze produce advertisements for fire and burn safety information *26(f)2A
- gives examples of correcting holiday hazards *26(f)1H

Materials: "Fire And Burn Safety Alert" overhead transparency (p. 23); "Charged Up For Burn Safety" activity sheet (p. 34); post-tests (p. 24); answer keys (p. 25-26).

Focus: Draw an octagon on the chalkboard. Ask students what that shape is a symbol for. (To stop while driving or riding a bike.) Have students list other signs and symbols they see. (EXIT, traffic light, Do Not Enter.)

Teacher: "Many of these signs are used for our safety. Some signs and symbols are used to tell us about fire and burn safety. In our earlier lessons, we learned some important ways to prevent fires and burns. Now, we'll learn some new things to help in care there is a fire and someone is burned."

Outline lesson objectives (paragraph above).

Presentation Of Content: Lead discussion of the definition of a burn — damage to the body caused by heat. Tell students that medical professionals classify burns by "degrees" depending on how much the skin has been damaged.

Teacher: "Not all burns look alike. We can tell how much damage has been caused by how the burn looks. We can use this chart of symbols to relate how a burn looks to the degree of burn."

Display "Fire And Burn Safety Alert" overhead transparency. Discuss first, second and third degree burns.

Guided Practice: Divide students into small groups, and distribute "Charged Up For Burn Safety" activity sheet. Have the students read the list of products and indicate whether those products can cause burns or could help prevent burns. Point out that several items are frequently seen at holidays; have students identify those items and how the danger of those items could be avoided.

Have the groups complete the section on matching descriptions to classification of burns.

Independent Practice: *Investigation.* Have students check their kitchens, bathrooms and garages for labels or other signs or symbols that warn of fire or burn dangers, then write a paragraph about what they found. Ask students to conclude their papers by writing a paragraph about why they should be concerned about preventing burns.

Reteaching: Invite the schools nurse to talk to the students about types of burns.

Enrichment: Have students examine other appliances and their advertisements for information on fire or burn safety. Have students write what they find, including their opinions on whether there is enough safety information in product labeling or advertisements.

Closure: Review the three classes of burns and why first aid is needed for burns. Ask students what new things they learned about fire prevention during this unit. Ask if they have changed or plan to change how they act around objects that could cause fires or burns. Encourage them to help their families and friends learn about fire safety.

Administer post-test.

Teacher Supplemental Materials

Name _____

Fifth Grade: Making Me Fire Safe PRE-TEST

Circle **True** or **False**.

1. Heating equipment does not need to be inspected unless there is a problem. True False
2. Weather can affect the opportunity for fires. True False
3. Cleaning up trash outdoors can help prevent fires. True False
4. You help your community by participating in fire drills at school. True False
5. The label on a product must tell if it can cause burns. True False
6. Setting a fire on purpose is a crime. True False
7. Making a false alarm is not a crime. True False
8. False alarms waste money. True False

Read the question, and fill in the blank.

9. What effect does a grass fire have?

_____

10. Doctors classify (or group) burns by their _____.
11. Starting a fire on purpose is called _____.
12. List three ways to keep a campfire from starting a bigger fire:

A. _____

B. _____

C. _____

Circle the letter that is the correct answer.

13. Which is more likely to cause a fire?

A. Central heating
B. Electric space heater

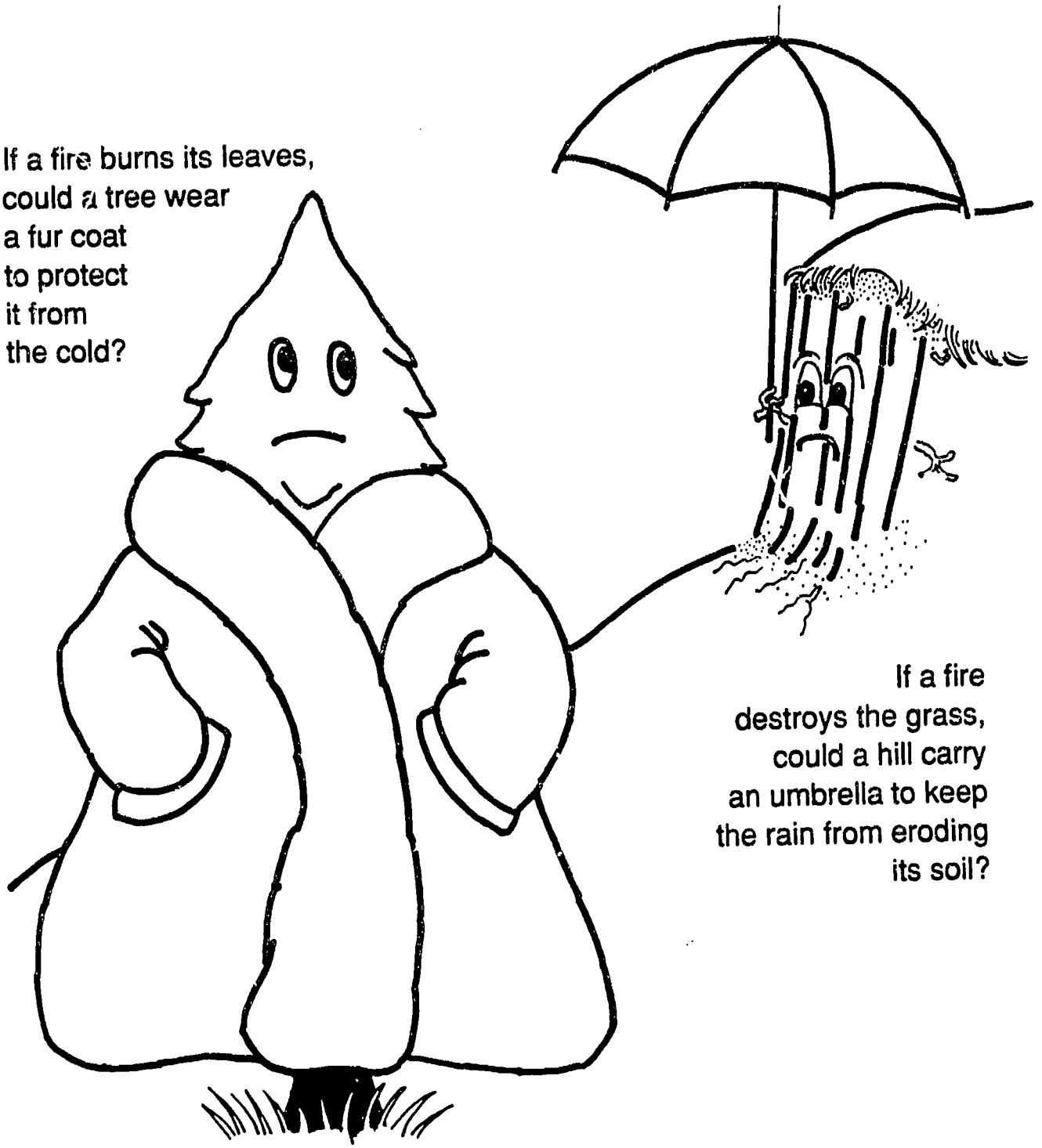
14. Arson hurts:

A. Only the owner of the building that was burned.
B. No one.
C. The entire community.

Teacher: Use with Lesson One, Page 9. Duplicate for student use.

Who Protects The Great Outdoors?

If a fire burns its leaves,
could a tree wear
a fur coat
to protect
it from
the cold?

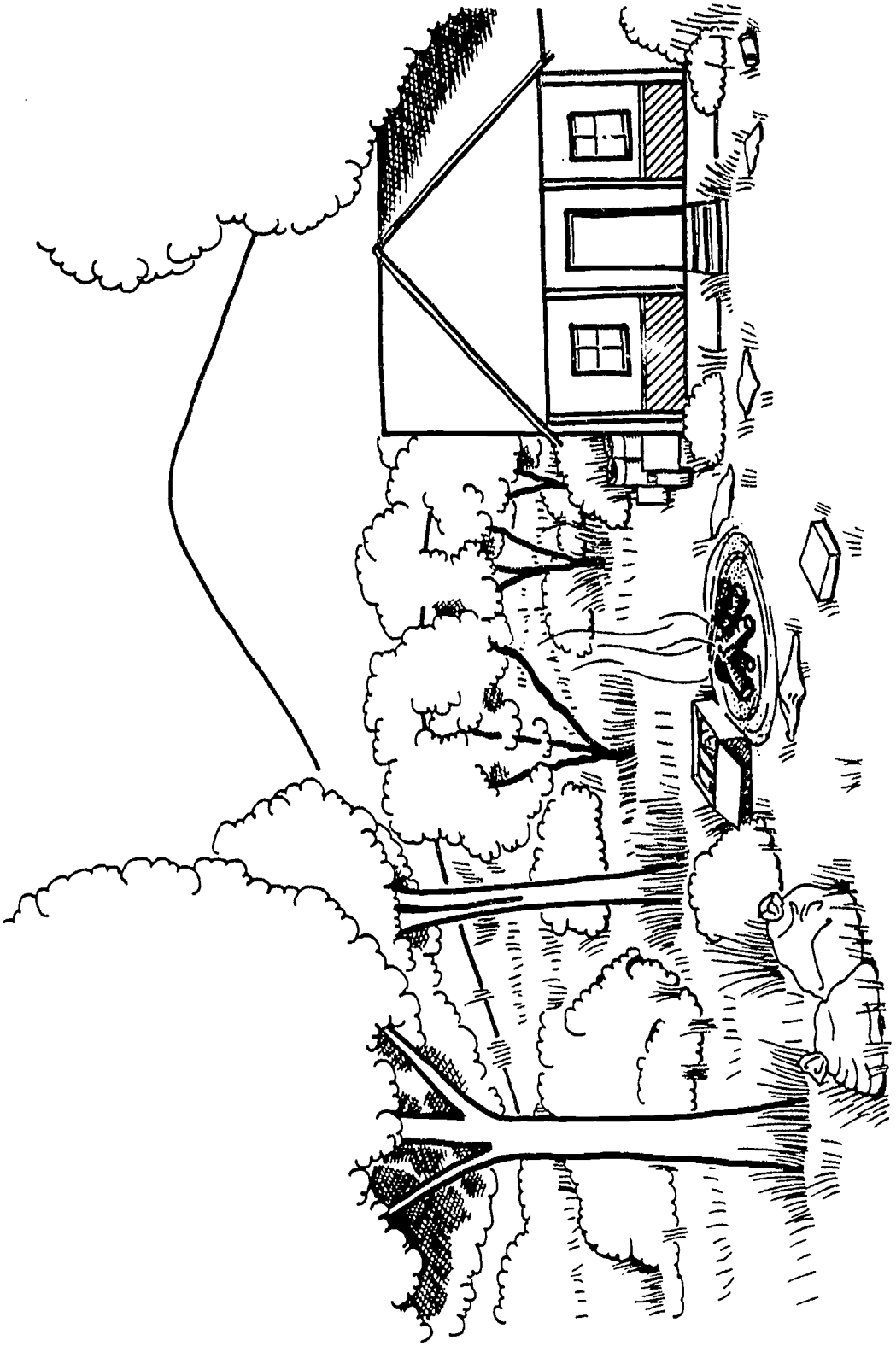


If a fire
destroys the grass,
could a hill carry
an umbrella to keep
the rain from eroding
its soil?

Teacher: Use with Lesson Two, Page 10. Transfer to overhead transparency.

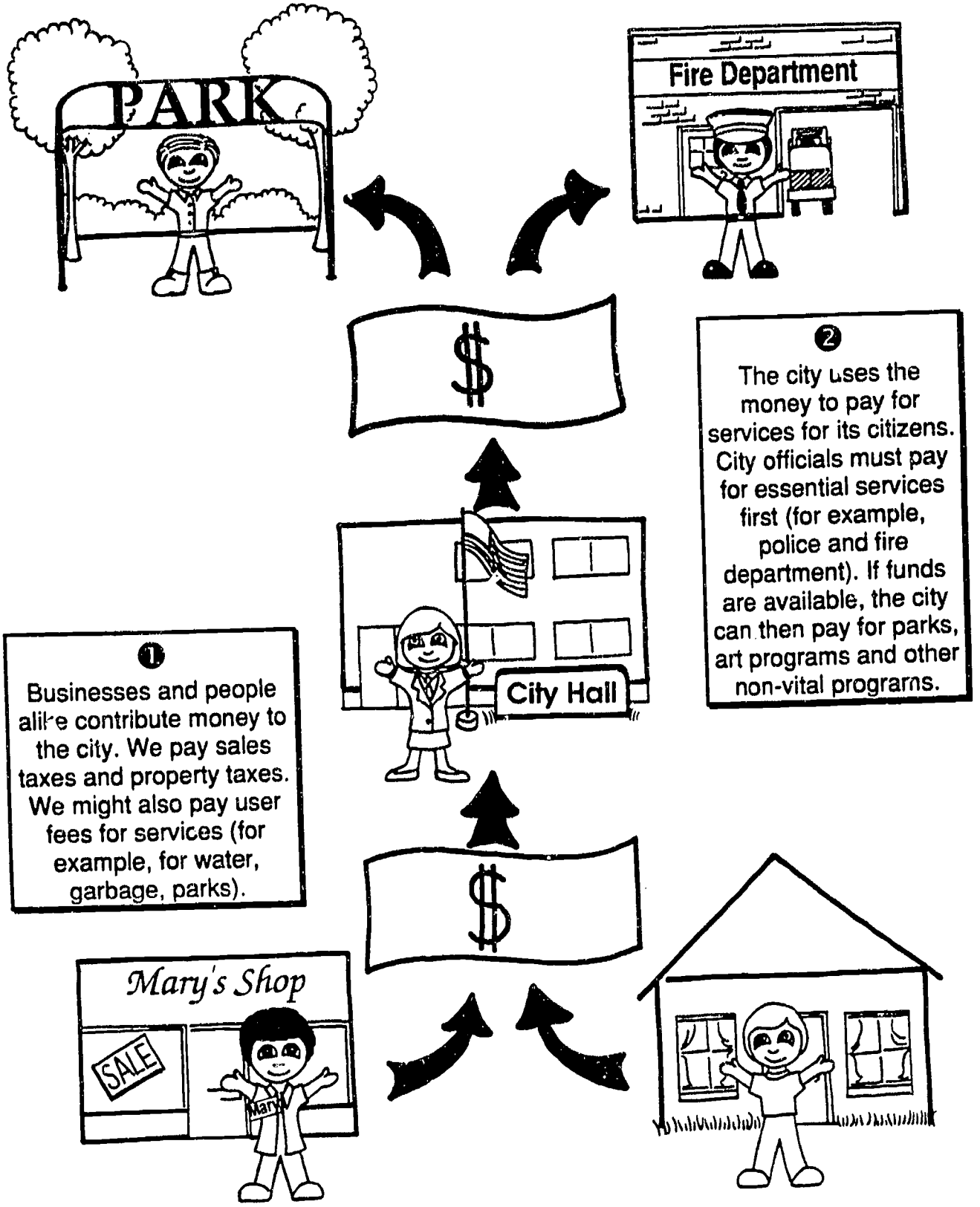
What's Going To Happen?

Discuss what might happen if a campfire is left burning in this yard.



Teacher: Use with Lesson Two, Page 10. Transfer to overhead transparency.

Our Community



❷ The city uses the money to pay for services for its citizens. City officials must pay for essential services first (for example, police and fire department). If funds are available, the city can then pay for parks, art programs and other non-vital programs.

❶ Businesses and people alike contribute money to the city. We pay sales taxes and property taxes. We might also pay user fees for services (for example, for water, garbage, parks).

Teacher: Use with Lesson Three, Page 11. Transfer to overhead transparency.

We're Ready

We want to be ready,
Yeah, we sure do.
In case there's a fire,
what do we do?
We will be prepared,
yeah, we sure will,
'Cause we're gonna have
a fire exit drill.

Some folks gonna help us.
Now, they're real hot.
For some it's a job,
for some it's not.
A fire department
can come two ways:
Some folks volunteer,
and some get pay.

When the fire bell rings,
you gotta stop
And listen real close –
what's the word from the top?
Go out real calm
the nearest way.
Now, don't you run
or joke or play.

Teacher: Use with Lesson Four, Page 12. Transfer to overhead transparency.

Fire Exit Drill In Action

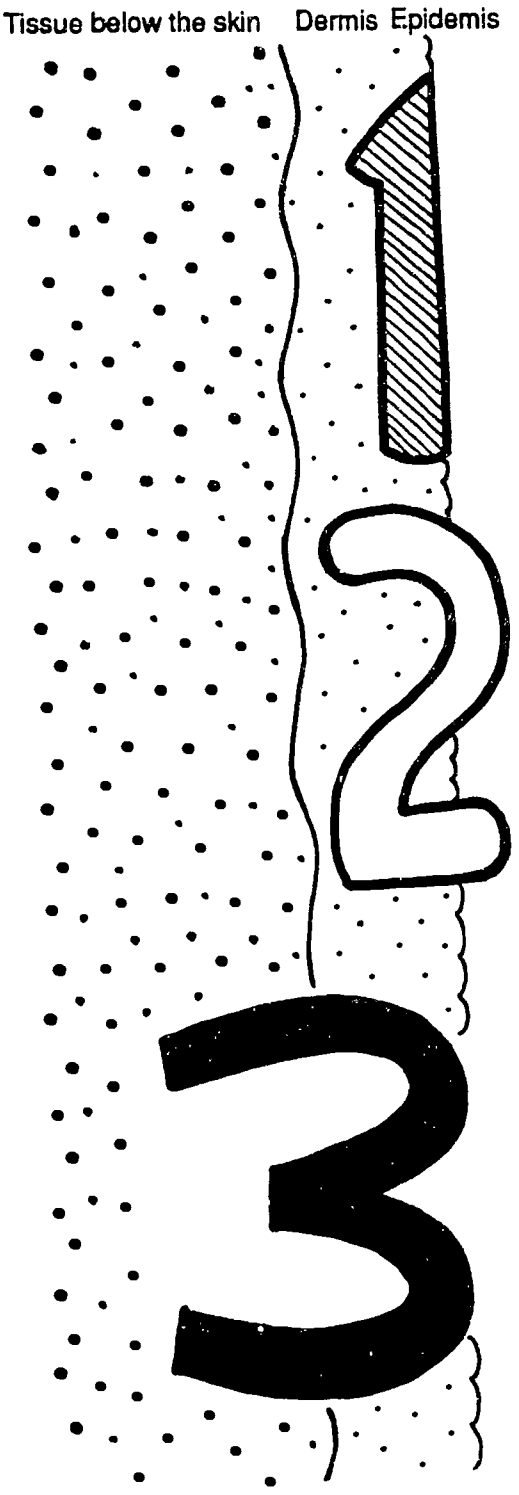
Role-Playing Cards

Fire Marshal: Give students and teacher directions. Then signal a fire alarm.	**Teacher:** Assist the fire marshal. Watch how students react.	**Class Monitor:** Assist the fire marshal and the teacher.	**Student:** Follow directions from the fire marshal.	**Student:** Follow directions from the fire marshal.
Fire Marshal: Give students and teacher directions. Then signal a fire alarm.	**Teacher:** Assist the fire marshal. Watch how students react.	**Class Monitor:** Assist the fire marshal and the teacher.	**Student:** Follow directions from the fire marshal.	**Student:** Follow directions from the fire marshal.
Fire Marshal: Give students and teacher directions. Then signal a fire alarm.	**Teacher:** Assist the fire marshal. Watch how students react.	**Class Monitor:** Assist the fire marshal and the teacher.	**Student:** Follow directions from the fire marshal.	**Student:** Follow directions from the fire marshal.
Fire Marshal: Give students and teacher directions. Then signal a fire alarm.	**Teacher:** Assist the fire marshal. Watch how students react.	**Class Monitor:** Assist the fire marshal and the teacher.	**Student:** Follow directions from the fire marshal.	**Student:** Follow directions from the fire marshal.
Fire Marshal: Give students and teacher directions. Then signal a fire alarm.	**Teacher:** Assist the fire marshal. Watch how students react.	**Class Monitor:** Assist the fire marshal and the teacher.	**Student:** Follow directions from the fire marshal.	**Student:** Follow directions from the fire marshal.
Fire Marshal: Give students and teacher directions. Then signal a fire alarm.	**Teacher:** Assist the fire marshal. Watch how students react.	**Class Monitor:** Assist the fire marshal and the teacher.	**Student:** Follow directions from the fire marshal.	**Student:** Follow directions from the fire marshal.

Teacher: Use with Lesson Four, Page 12. Copy, then cut apart. Distribute one set to each group. Have students assign roles. Designate extra group members as additional "students."

Fire and Burn Safety Alert

Medical professionals classify (or group) burns by "degrees." The "degree" tells how much the skin has been damaged. It also guides how the burn should be treated. The chart below illustrates the three types of burns.



First-Degree Burn:

The top layer of skin is burned.

Pink or red. Usually fades in a few minutes or hours.

Treat the burn by running cool water over the burn for three to five minutes.

Second-Degree Burn:

The top and middle layers of skin are burned.

Red or white with water blisters.

Painful.

Treat the burn by running cool water over the burn for three to five minutes. See a doctor if the burn covers a large area.

Third-Degree Burn:

The full thickness of skin is burned.

Dry, black or ashy.

Sometimes no pain because nerve sensors are damaged.

Call emergency medical assistance or go to the emergency room immediately. If possible, cool with cool water to prevent further burning.

Teacher: Use with Lesson Five, Page 13. Transfer to overhead transparency.

Name _____

Fifth Grade: Making Me Fire Safe **POST-TEST**

Circle **True** or **False**.

1. Heating equipment does not need to be inspected unless there is a problem. True False
2. Weather can affect the opportunity for fires. True False
3. Cleaning up trash outdoors can help prevent fires. True False
4. You help your community by participating in fire drills at school. True False
5. The label on a product must tell if it can cause burns. True False
6. Setting a fire on purpose is a crime. True False
7. Making a false alarm is not a crime. True False
8. False alarms waste money. True False

Read the question, and fill in the blank.

9. What effect does a grass fire have?

_____

10. Doctors classify (or group) burns by their _____.
11. Starting a fire on purpose is called _____.
12. List three ways to keep a campfire from starting a bigger fire:

A. _____

B. _____

C. _____

Circle the letter that is the correct answer.

13. Which is more likely to cause a fire?

A. Central heating
B. Electric space heater

14. Arson hurts:

A. Only the owner of the building that was burned.
B. No one.
C. The entire community.

Teacher: Use with Lesson Five, Page 13. Duplicate for student use.

ANSWER KEY-1

Name _____

Fifth Grade: Making Me Fire Safe PRE-TEST POST-TEST

Circle True or False

1. Heating equipment does not need to be inspected unless there is a problem. True (False)
2. Weather can affect the opportunity for fires. (True) False
3. Cleaning up trash outdoors can help prevent fires. (True) False
4. You help your community by participating in fire drills at school (True) False
5. The label on a product must tell if it can cause burns. True (False)
6. Setting a fire on purpose is a crime. (True) False
7. Making a false alarm is not a crime. True (False)
8. False alarms waste money. (True) False

Read the question, and fill in the blank.

9. What effect does a grass fire have? (Accept other reasonable answers) Loss of use of the land, soil erosion, loss of animal homes.
10. Doctors classify (or group) burns by their degree.
11. Starting a fire on purpose is called arson.
12. List three ways to keep a campfire from starting a bigger fire:
    A. Be sure the fire is away from grass and trees.
    B. Use a campfire when there is no wind.
    C. Put the fire out completely (with sand or water).

Circle the letter that is the correct answer.

13. Which is more likely to cause a fire?
    A. Central heating
    (B) Electric space heater

14. Arson hurts:
    A. Only the owner of the building that was burned.
    B. No one.
    (C) The entire community.

Teacher: Use with Lesson One, Page 6. Duplicate for student use.

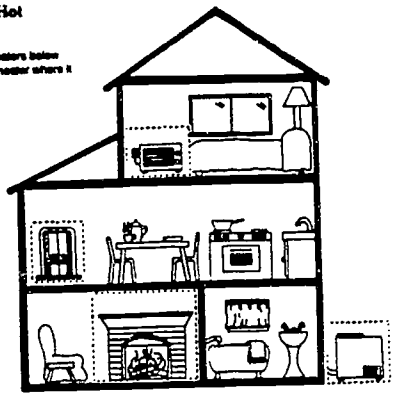
Commission on Fire Protection: Fire Safety for Texans — Fifth Grade: Charged Up For Fire Safety

Name _____

Warm, But Not Too Hot

Classification Activity Sheet

Read the descriptions of the heaters below. Then cut out and paste each heater where it would be found in the home.



A. Liquid-fueled portable heater

This type of heating equipment burns a liquid fuel. One type of liquid fuel is kerosene. The fire and fuel are usually held within a tall cylinder. The base looks like a large dish. It can be moved from place to place.

B. Fireplace

This type of heating equipment burns solid fuel, usually logs. It is usually found in living rooms, but some homes have one in a bedroom. Unfortunately, some people like to place chairs and other furniture close to this heater.

C. Central heating unit

This type of heating equipment is usually located outdoors or in a special room. Fans blow hot air from heating unit to the rooms. This heating equipment may burn liquid fuels, such as natural gas, or it may run on electricity.

D. Portable electric heater

This type of heating equipment is usually less expensive, so families like to buy them to use in bedrooms. It can also be moved from place to place. The biggest problem is that they are placed too close to furniture.

Teacher: Use with Lesson One, Page 6. Duplicate for student use.

Commission on Fire Protection: Fire Safety for Texans 25 Fifth Grade: Charged Up For Fire Safety

Name _____

Charged Up For House Safety

Investigation Activity Sheet

With help from an adult, look at the heating equipment in your home. In the boxes below, write what type of heater it is. Then check the following:

- ☑ Is there 3 feet of open space around the heater? (If it is a central heating system, check for clutter near the heating unit.)
- ☑ Is there a metal screen?
- ☑ Is the energy source safe? (See the note at the bottom of the page.)

Type of heater	Clear for 3 Feet Around?	Metal Screen?	Safe energy source?
Accept reasonable answers. Evaluate students on effort and completeness.			

*Safe Energy Source:
Electrical – Is the cord in good condition, not broken or ragged? Is the cord plugged directly into a wall outlet, not an extension cord?
Gas or other liquid fuel – Are all hoses in good condition? Was it inspected before the pilot light was lit?
Fireplace – Are logs stored outside? Was the chimney cleaned and inspected this year?

How safe is "alternative heating"?

To save energy, many people use room heaters instead of their central heating systems. They might use electric room heaters, wood stoves or liquid-fuel heating (like a natural gas heater or kerosene heater). Is this more or less likely to cause a fire? Why?

This is more likely to cause a fire, because it places more heat closer to items that will burn, such as beds and chairs.

Teacher: Use with Lesson One, Page 6. Duplicate for student use.

Commission on Fire Protection: Fire Safety for Texans 30 Fifth Grade: Charged Up For Fire Safety

Name _____

Fire Hurts Us All

Group Discussion Activity

Read each short story. Then discuss what you think should be done. Do you agree with others in your group? Accept reasonable answers. Students may express different opinions.

1. The fire department received an emergency call that a house was on fire. When they arrived at the address, there was no fire. It cost the fire department $750 to answer that false alarm. The 9-1-1 operator traced the call to a nearby house, where a 12-year-old person lives. The fire captain went to that house. What do you think he said to the 12-year-old? He asked him about the call and explained why false alarms are dangerous. He told him not to make false alarms.

2. A store was burned by someone who was angry at the owner. The owner didn't have enough money to buy new goods or a building, so the workers lost their jobs. Who was hurt by this fire? The owner, the workers, people who shopped in the store, the entire community.

3. Last month, the city spent $750 every time a fire truck answered a fire alarm, even if there was no fire. How much money did the city spend if there were 15 false alarms? What else could the city have bought with this money? The city spent $11,250. The city could have bought books for the library or playground equipment. (Accept reasonable answers.)

4. The fire department spent $2,000 putting out a grass fire. The fire investigator learned that a young person playing with matches started the fire. What do you think the fire investigator said to the young person? He would ask him or her about the fire. He would talk about the dangers of playing with matches and what the fire fighters face in putting out the fire.

Teacher: Use with Lesson Three, Page 11. Duplicate for student use.

Commission on Fire Protection: Fire Safety for Texans 31 Fifth Grade: Charged Up For Fire Safety

ANSWER KEY-2

Name _____

We're Ready
Discussion Activity

Read each verse, then discuss the questions.

We want to be ready,
Yeah, we sure do.
In case there's a fire,
what do we do?
We will be prepared,
yeah, we sure will,
'Cause we're gonna have
a fire exit drill.

Some folks gonna help us.
Now, they're real hot.
For some it's a job,
for some it's not.
A fire department
can come two ways:
Some folks volunteer,
and some get pay.

When the fire bell rings,
you gotta stop
And listen real close –
what's the word from the top?
Go out real calm
the nearest way.
Now, don't you run
or joke or play.

Why is it important for you to be prepared for a fire?
It's hard to think in an emergency.
To keep from being hurt in a fire.

Is your local fire department paid or volunteer?
Accept correct responses.

List the three things you should do when you hear a fire alarm.
1. Stop what you are doing.
2. Listen to directions.
3. Go out calmly and quietly.

Teacher: Use with Lesson Four Page 10. Duplicate for student use.

Commission on Fire Protection: Fire Safety for Texans 32 Fifth Grade: Charged Up For Fire Safety

Name _____

How Prepared Are We?
Observation Activity Sheet

Observe how your class (or another class) reacts to a fire exit drill. Write your observations and conclusion below.

Time the fire alarm sounded: Accept reasonable answers.

How many minutes to get outside: Target 1-3 minutes.

Rate the class's actions. Check the box that describes what you observed.

	☺ Safe Actions	☺ Okay	☹ Unsafe Actions
Walking out calmly	Answers should be accurate observations of behavior.		
Staying quiet			
Waiting in assigned area			
Going back in quietly			

What could you do to help the class do a better job?
Answers should relate to items above marked "Okay" or "Unsafe Actions."

Teacher: Use with Lesson Four Page 12. Duplicate for student use.

Commission on Fire Protection: Fire Safety for Texans 33 Fifth Grade: Charged Up For Fire Safety

Name _____

Charged Up For Burn Safety
Making-Conclusions Activity Sheet

Look at the following list. Cross out items that could cause burns. Circle the items that could help prevent burns.

With your group, discuss how you could help make the items you crossed out less dangerous.

~~Birthday cake candles~~
~~Car engine~~
~~Christmas candles~~
~~Cigarette lighters~~
Electrical outlet covers
~~Electrical outlets~~
~~Fire crackers~~
Flashlights
Gasoline safety cans
Hot pads
~~Matches~~
Smoke alarms
~~Sparklers~~
Sun screen lotion
~~Program~~

What degree?

Each phrase describes one of the three "degrees" of burns. In the blank, write
① if it describes a first degree burn,
② if it describes a second degree burn, or
③ if it describes a third degree burn.

2 The top and middle layers of skin are burned
1 Pink or red. Usually fades in a few minutes or hours
2 Treated by running cool water over the burn for three to five minutes (See a doctor if the burn covers a large area.)
3 Dry, black or ashy
2 Red or white with water blisters. Painful
1 Treated by running cool water over the burn for three to five minutes
3 The full thickness of skin is burned
3 Sometimes no pain because nerve sensors are damaged
1 The top layer of skin is burned
3 So serious that you should call emergency medical assistance or go to the emergency room immediately (If possible, cool with cool water to prevent further burning.)

Teacher: Use with Lesson Four Page 13. Duplicate for student use.

Commission on Fire Protection: Fire Safety for Texans 34 Fifth Grade: Charged Up For Fire Safety

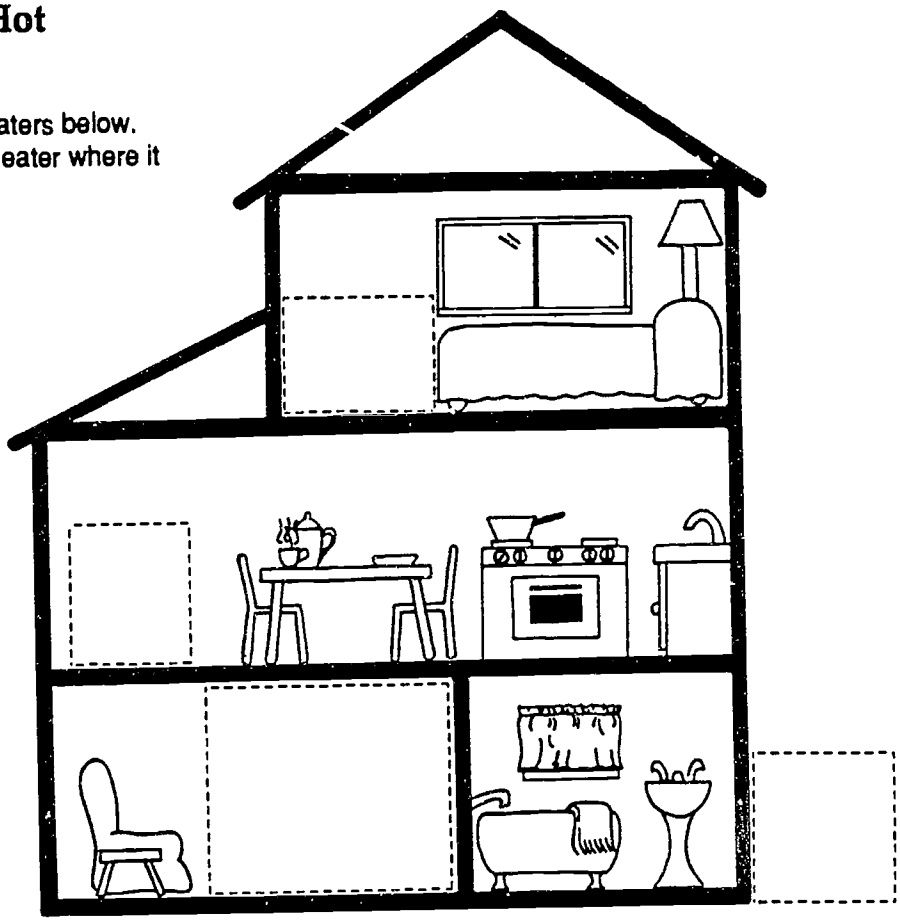
Student Materials — Duplicating Masters

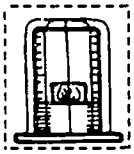
Name _____

Warm, But Not Too Hot

Classification Activity Sheet

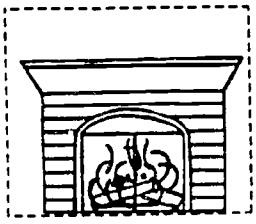
Read the description of the heaters below. Then cut out and paste each heater where it would be found in the home.





A. Liquid-fueled portable heater

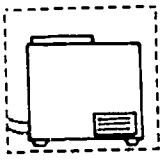
This type of heating equipment burns a liquid fuel. One type of liquid fuel is kerosene. The fire and fuel are usually held within a tall cylinder. The base looks like a large dish. It can be moved from place to place.



B. Fireplace

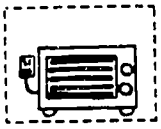
This type of heating equipment burns solid fuel, usually logs. It is usually found in living rooms, but some homes have one in a bedroom. Unfortunately, some people like to place chairs and other furniture close to this heater.

C. Central heating unit



This type of heating equipment is usually located outdoors or in a special room. Fans blow hot air from heating unit to the rooms. This heating equipment may burn liquid fuels, such as natural gas, or it may run on electricity.

D. Portable electric heater



This type of heating equipment is usually less expensive, so families like to buy them to use in bedrooms. It can also be moved from place to place. The biggest problem is that they are placed too close to furniture.

Teacher: Use with Lesson One, Page 9. Duplicate for student use.

Name _____

Charged Up For Home Safety

Investigation Activity Sheet

With help from an adult, look at the heating equipment in your home. In the boxes below, write what type of heater it is. Then check the following:

- ☑ Is there 3 feet of open space around the heater? (If it is a central heating system, check for clutter near the heating unit.)
- ☑ Is there a metal screen?
- ☑ Is the energy source safe? (See the note at the bottom of the page.)

Type of heater	Clear for 3 Feet Around?	Metal Screen?	Safe energy source?

***Safe Energy Source:**

Electrical – Is the cord in good condition, not broken or ragged? Is the cord plugged directly into a wall outlet, not an extension cord?

Gas or other liquid fuel – Are all hoses in good condition? Was it inspected before the pilot light was lit?

Fireplace – Are logs stored outside? Was the chimney cleaned and inspected this year?

How safe is "alternative heating"?

To save energy, many people use room heaters instead of their central heating systems. They might use electric room heaters, wood stoves or liquid-fuel heating (like a natural gas heater or kerosene heater). Is this more or less likely to cause a fire? Why?

Teacher: Use with Lesson One, Page 9. Duplicate for student use.

Name _____

Fire Hurts Us All

Group Discussion Activity

Read each short story. Then discuss what you think should be done. Do you agree with others in your group?

1. The fire department received an emergency call that a house was on fire. When they arrived at the address, there was no fire. It cost the fire department $750 to answer that false alarm. The 9-1-1 operator traced the call to a nearby house, where a 12-year-old person lives. The fire captain went to that house. What do you think he said to the 12-year-old?

2. A store was burned by someone who was angry at the owner. The owner didn't have enough money to buy new goods or a building, so the workers lost their jobs. Who was hurt by this fire?

3. Last month, the city spent $750 every time a fire truck answered a fire alarm, even if there was no fire. How much money did the city spend it there were 15 false alarms? What else could the city have bought with this money?

4. The fire department spent $2,000 putting out a grass fire. The fire investigator learned that a young person playing with matches started the fire. What do you think the fire investigator said to the young person?

Teacher: Use with Lesson Three, Page 11. Duplicate for student use.

Name _____

We're Ready

Discussion Activity

Read each verse, then discuss the questions.

We want to be ready,
Yeah, we sure do.
In case there's a fire,
what do we do?
We will be prepared,
yeah, we sure will,
'Cause we're gonna have
a fire exit drill.

Why is it important for you to be prepared for a fire?

Some folks gonna help us.
Now, they're real hot.
For some it's a job,
for some it's not.
A fire department
can come two ways:
Some folks volunteer,
and some get pay.

Is your local fire department paid or volunteer?

When the fire bell rings,
you gotta stop
And listen real close –
what's the word from the top?
Go out real calm
the nearest way.
Now, don't you run
or joke or play.

List the three things you should do when you hear a fire alarm.

Teacher: Use with Lesson Four, Page 12. Duplicate for student use.

Name _____

How Prepared Are We?

Observation Activity Sheet

Observe how your class (or another class) reacts to a fire exit drill. Write your observations and conclusion below.

Time the fire alarm sounded: _____

How many minutes to get outside: _____

Rate the class's actions. Check the box that describes what you observed

	☺ Safe Actions	😐 Okay	☹ Unsafe Actions
Walking out calmly			
Staying quiet			
Waiting in assigned area			
Going back in quietly			

What could you do to help the class do a better job?

Teacher: Use with Lesson Four, Page 12. Duplicate for student use.

Name _____

Charged Up For Burn Safety

Making-Conclusions Activity Sheet

Look at the following list. Cross out items that could cause burns. Circle the items that could help prevent burns.

With your group, discuss how you could help make the items you crossed out less dangerous.

Birthday cake candles
Car engine
Christmas candles
Cigarette lighters
Electrical outlet covers
Electrical outlets
Fire crackers
Flashlights
Gasoline safety cans
Hot pads
Matches
Smoke alarms
Sparklers
Sun screen lotion
The sun

What degree?

Each phrase describes one of the three "degrees" of burns. In the blank, write:

① if it describes a first degree burn,
② if it describes a second degree burn, or
③ if it describes a third degree burn.

___ The top and middle layers of skin are burned.
___ Pink or red. Usually fades in a few minutes or hours.
___ Treated by running cool water over the burn for three to five minutes. (See a doctor if the burn covers a large area.)
___ Dry, black or ashy.
___ Red or white with water blisters. Painful.
___ Treated by running cool water over the burn for three to five minutes.
___ The full thickness of skin is burned.
___ Sometimes no pain because nerve sensors are damaged.
___ The top layer of skin is burned.
___ So serious that you should call emergency medical assistance or go to the emergency room immediately. (If possible, cool with cool water to prevent further burning.)

Teacher: Use with Lesson Five, Page 13. Duplicate for student use.