

WHAT CAN YOU DO?

A Fire Awareness Curriculum for Grade 5

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IN MEMORY OF A SPECIAL FRIEND

Rex was a strong advocate for fire prevention education. He passed away in 2005. A memorial fund established in his name underwrote the *Fire's Use Throughout History* timeline for the curriculum.

Rex had a long and distinguished career in the fire service, beginning with service in the navy as a firefighter on an aircraft carrier. He continued his fire service career in Roseburg, Oregon, and then became the Estacada fire chief. In 1980 he joined Tualatin Valley Fire

and Rescue, where he retired in 1997 while serving as their assistant fire marshal. The following July he joined the Office of State Fire Marshal, where he served as a “temporary” deputy state fire marshal for four years, “retiring” again in 2001.



A NOTE TO OUR TEACHER-PARTNERS

Every hour of every school day in your classrooms you do the important work of preparing children for their lives as adults. Please include solid instruction about fire and life safety in that preparation.

In 2001, over 5,000 Oregon students in grades three through eight were surveyed about their knowledge of fire as part of a research study done for the Office of State Fire Marshal. Ninety-four percent of the students reported receiving fire safety education in their school. Overall, students who were taught fire safety performed better on the fire knowledge questions: 95 percent of them knew to stop, drop and roll if their clothes caught on fire (82 percent if they had received no fire education); 89 percent of them knew to crawl low and get out if they were in a smoke-filled room (72 percent if they had received no fire education).

Clearly, we are doing a good job of teaching basic life-saving maneuvers. To truly prepare our students, however, we must also teach them about the power of fire. We must help them acquire the skills necessary to prevent fires and to make responsible, fire-safe decisions. We must help them understand that fire has been a useful tool to human beings since time beyond history and that it must always be treated with profound respect. This curriculum, *What Can You Do?*, and its companion curriculum for middle school students, *It's Up to You!*, are written with all this in mind.

The reality of fire is that a home can quickly be engulfed in flames. The fire department, despite valiant efforts, may be unable to save it or people trapped within. Every day, somewhere in this country, fire department personnel fight fires at great risk to themselves. They have prepared and trained for just such an event and we are grateful for their commitment and heroism. Our responsibility, and this is the great lesson that should be communicated to our students, is to plan to prevent fires so that the fire department is never called to our homes because of our risky behavior, carelessness, lack of planning or poor decision making. When the engines roll, prevention has failed.

Let's work together to make dangerous acts by firefighters unnecessary. Let's work together to prepare students to take their places in our communities as fire-safe, fire-responsible adults.

Nancy Orr
State Fire Marshal

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1

FIRE FACTS

Purposeful Fire Uses / Management of Fire

Community Helpers
Timeline of Fire
Reality of Fire

2

FIRE PREVENTION

Major Fire Causes / Prevention Activities

Safe/Unsafe for Children
Investigation Stations
Home Fire Hazards Search

3

FIRE SAFETY SOLUTIONS

Fire Safety Technology
Smoke Alarms and Advocacy
Technology Timeline
Fire Safety Solutions

4

SURVIVAL SKILLS

Disaster Preparedness / Survival Skills

Survival Skills Stations
Fire Escape Plan
Disaster Preparedness Plan

5

FIRE SMART DECISIONS

Responsible Behavior Regarding Fire

Fire Story Starts
Fire-safe Scenarios
Fire-smart Fire-safe Skits
Summer Fire Safety (bonus lesson)



6

NATIVE AMERICANS & FIRE

(Bonus Information)

WHICH OREGON STATUTES SUPPORT FIRE EDUCATION?

ORS 336.071 Emergency drills and instruction; maintenance of exit doors.

- (1) All schools are required to instruct and drill students on emergency procedures so that the students may respond to an emergency without confusion or panic. The emergency procedures shall include drills and instruction on fires and earthquakes. In addition, schools that are in a coastal zone shall include tsunami drills and instruction as part of the earthquake drills and instruction.
- (2) (a) Drills and instruction on fire emergencies shall include routes and methods of exiting the school building.
- (2) (b) Drills and instruction on earthquake emergencies shall include methods of “duck, cover and hold” during the earthquake. Drills and instruction on tsunami emergencies shall include immediate evacuation after an earthquake when appropriate or after a tsunami warning to protect students against inundation by tsunamis.
- (3) At least 30 minutes in each school month shall be used to instruct students on fire, earthquake, and, where appropriate, tsunami dangers and drills. At least two drills on earthquakes shall be conducted each year. In schools in a coastal zone, at least three drills on earthquakes and tsunamis shall be conducted each year.
- (4) All schools shall maintain all exit doors so that the doors can be opened from the inside without a key during school hours.
- (5) Units of local government and state agencies associated with emergency procedures training and planning shall assist schools in the instruction and drilling of students in emergency procedures.
- (6) As used in this section, “school” means any
- (6) (a) Kindergarten through grade eight public or private school; or
- (6) (b) Educational institution having an average daily attendance of 50 or more students.
- [1995 c.312 §2 (enacted in lieu of 336.072); 1997 c.521 §9]

* * * * *

OAR 581-022-1210 District Curriculum

- (1) Each school district shall provide a planned K-12 instructional program.
- (2) The planned K-12 instructional program shall be consistent with Common Curriculum Goals and academic content standards.
- (3) The school district shall also provide instruction in the areas identified in this division, including:
- (a) infectious diseases, including AIDS/HIV and Hepatitis B;
 - (b) prevention education in drugs and alcohol; and
 - (c) emergency plans and safety programs.
- (4) The school district shall also provide instruction in the areas identified and required in ORS 336.

1997 Uniform Fire Code

Section 1302 - Reporting of Emergencies and False Alarms

1302.2 Reporting Emergencies. In the event a fire occurs or the discovery of a fire, smoke or unauthorized release of flammable or hazardous materials on any property occurs, the owner or occupant shall without delay report such condition to the fire department.

1302.3 False Alarms. False alarms shall not be given, signaled or transmitted or caused or permitted to be given, signaled or transmitted in any manner. See ORS 162.375.

WHY FIRE AWARENESS EDUCATION?

More than 15,000 fires occur in Oregon each year. On average, forty Oregonians die in these fires and millions of dollars worth of property are lost. Most fires occur in the places we call home. Homes do not get inspected as buildings and institutions do. Therefore, people are responsible for home fire safety ... for self, family and neighbors.

WHY FIRE EDUCATION SPECIFICALLY FOR ELEMENTARY STUDENTS?

An estimated 2,500 children age fourteen or younger were injured or killed in residential fires in 2002 according to the U.S. Fire Administration (USFA) 2005 report. Of these fire casualties, 70 percent were under the age of ten. Children continue to be a high-risk population in residential fires.

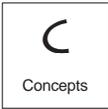
Home fires involving children are often preventable. Educating students and families about fire-safe practices empowers individuals to “be smart and be safe” in fire-threatening situations. It is imperative that students demonstrate conceptual understanding and practice related skills in fire awareness. It is imperative to teach this at the elementary level and to continue through middle school. State law (ORS.336.071) in Oregon requires age-appropriate K-8 fire awareness education.

WHY STANDARDS-BASED EDUCATION?

Standards focus on essential concepts, skills and behaviors necessary for students to succeed and survive in the 21st century. Content standards indicate what students are expected to know and be able to do.

Content standards from health education, language arts and social sciences are infused throughout this curriculum. Following pages show some particular integrations in these areas.

OREGON HEALTH EDUCATION STANDARDS



Students will comprehend **concepts** related to health promotion and disease prevention.



Students will **demonstrate** the ability to access valid health information and health promoting products and services.



Students will **demonstrate** the ability to practice health-enhancing behaviors and reduce health risks.



Students will **analyze** the influences of culture, media, technology and other factors on health.



Students will **demonstrate** the ability to use interpersonal communication skills to enhance health.



Students will **demonstrate** the ability to use goal setting to enhance health.



Students will **demonstrate** the ability to use decision making skills to enhance health.



Students will **demonstrate** the ability to advocate for personal, family and community health.

INTEGRATION - HEALTH EDUCATION STANDARDS

The health education standards are identified as health skills in eight conceptual areas.

Unintentional Injury Prevention is the conceptual area where students acquire knowledge and skills necessary to be safe at home, at school and in the community, and how to get help in case of injury.

Unintentional Injury Prevention

Common Curriculum Goals	Content Standards	Benchmark 1 (Grade 3)	Benchmark 2 (Grade 5)
Demonstrate accessing information, self-management, interpersonal communication, goal setting and decision making skills while understanding the components of injury prevention.	Explain how to prevent dangerous or risky behaviors that might lead to personal injury and how to respond to potentially unsafe situations at home, at school and in the community.	Identify safe behaviors when traveling to and from school and in the community. <i>What Can You Do?</i> Unit 2: Fire Prevention Unit 5: Fire Smart Decisions	Identify ways to prevent fires and reduce the risk of injuries in case of fire. <i>What Can You Do?</i> Unit 2: Fire Prevention Unit 3: Fire Safety Inventions Unit 4: Survival Skills
	Demonstrate ability to access valid health-related information.		Access information on the nature of fire, how fires start, fire's destructiveness, and how fires can be prevented. <i>What Can You Do?</i> Unit 1: Fire Facts Unit 2: Fire Prevention
	Demonstrate self-management skills necessary to practice health-enhancing behaviors and reduce health risks.		
	Demonstrate ability to use interpersonal communication skills (verbal and non-verbal) to enhance health and safety.	Use decision-making model to avoid dangerous situations. <i>What Can You Do?</i> Unit 5: Fire Smart Decisions	Demonstrate how to respond to peers who may pressure you to misuse fire or fireworks. <i>What Can You Do?</i> Unit 5: Fire Smart Decisions

INTEGRATION - SOCIAL SCIENCES STANDARDS

When studying social sciences, specifically history, students can make connections between past, present and future. The elementary fire awareness curriculum includes historical connections at the 3rd - 5th grade level.

Common Curriculum Goals	Common Curriculum Goals	Benchmark 1 (Grade 3)	Benchmark 2 (Grade 5)
<p>Historical skills Interpret and reconstruct chronological relationships.</p>	<p>Understand, represent, and interpret chronological relationships in history.</p>	<p>Understand calendar time sequences and chronological sequences within narratives.</p> <p><i>What Can You Do?</i> Unit 1: Fire Facts</p>	<p>Interpret data and chronological relationships presented in timelines and narratives.</p> <p><i>What Can You Do?</i> Unit 1: Fire Facts Unit 3: Fire Safety Inventions</p>
<p>Understand, recognize and interpret change and continuity over time.</p>	<p>Interpret and represent chronological relationships and patterns of change and continuity over time.</p>		<p>Understand how history can be organized using themes, geography or chronology.</p> <p><i>What Can You Do?</i> Unit 3: Fire Safety Inventions</p>

INTEGRATION - LANGUAGE ARTS STANDARDS

The Oregon 2005 Literacy Initiative urges teachers to provide learning opportunities for students to achieve the following skills:

- Every K-3rd grade student will become a proficient reader.
- All 4th-12th grade students will meet measurable and increasingly complex reading, writing and speaking skills.

This elementary fire awareness curriculum includes activities and assessments to develop and strengthen reading, writing and speaking skills. A “Key Words and Concepts” list at the start of each unit includes vocabulary to be woven into first through fifth grade lessons. A “Do the Write Thing” graphic illustration is included with each unit to be used as a prompt for student writing activities and reflection. An extensive resource list is provided for teachers and students at the end of each unit.

Common Curriculum Goals	Content Standards	Grades 3-4	Grade 5
Reading	Listen to and read informational text.		
Writing		<i>What Can You Do?</i> Unit 1: Fire Facts	<i>What Can You Do?</i> Unit 1: Fire Facts
Speaking			



GOAL

The goal of this curriculum is
to teach fire awareness concepts to
elementary students and provide them
opportunities to practice skills for personal,
family and community safety.

CORE CONCEPTS

Age-appropriate knowledge about fire.

Learning and practicing skills.

Responsible decision-making.

WHAT CAN YOU DO?

Scope and Sequence

UNIT TOPICS	Fire Facts	Fire Prevention	Fire Safety Inventions	Survival Skills	Fire-Smart Decisions
Student willunderstand the role of fire and its impact on human life.	...recognize the components of fire prevention.	...identify the technology related to fire survival and suppression.	...identify survival skills for disasters such as fire, earthquakes & severe weather.	...recognize responsible behavior regarding fire.
Grade 1-2	Community Helpers Access information on fire station, staff, equipment and services. (AI)	Safe/Unsafe for Children Compare & contrast responsible fire use & misuse. (C)	Smoke Alarms & Advocacy Demonstrate correct response to smoke alarm, test, advocate. (AV)	Survival Skills Stations Demonstrate steps for survival in home fire and earthquake. (SM)*	Decision-Making Skills Practice decision-making strategy and make fire-safe choices. (DM)
Grade 3-4	Time line of Fire Explore the uses of fire throughout history. (AI)	Investigation Stations Analyze the leading causes of home fires. (AI)	Technology Timeline Construct chronological sequences of fire suppression technology.	Fire Escape Plan Create home fire escape plan and earthquake survival plan. (C)*	Fire-Safe Scenarios Write decision-making dialogue. (DM)*
Grade 5	Reality of Fire Describe the physical characteristics of fire. (AI)	Home Fire Hazards Search Assess home fire hazards. (AV)	Fire History Research Research fire history. (AI)	Disaster Preparedness Develop and practice emergency plans. (SM)	Fire Safe Fire Smart Skits Communicate responsible decision-making. (IC)*

*performance task for Health Education standards and assessment

INFORMATION ABOUT THE CURRICULUM

WHAT CONTENT IS COVERED?

age-appropriate, relevant and realistic content related to fire awareness and disaster preparedness with family, community and curriculum connections

WHAT LESSON SEQUENCE SHALL I FOLLOW?

A scope and sequence is included. “A” lessons are designed for grades 1-2, “B” lessons for grades 3-4, and “C” lessons for grade 5. Review and further exploration of lessons from the previous year should be used as a bridge for the current lesson. Extended learning activities are suggested.

WHAT IS THE TIME COMMITMENT FOR THE LESSONS?

Lessons are designed for a thirty minute class period. There are five lessons for each of the grades 1 through 5 and a summer safety lesson on fireworks and campfire safety appropriate for all grades. Lessons may be extended beyond thirty minutes depending on class interest and/or needs.

Performance tasks for State Health Education Standards may require additional class time.

WHAT ABOUT SENSITIVE ISSUES?

It is important to consider both site-specific needs and student needs. A parent letter to be sent home before starting the curriculum suggests that parents contact the teacher with questions or concerns, such as a student experiencing a home fire or burn injuries.

A SPECIAL OPPORTUNITY

Teachers are invited to submit exemplary student work for sharing via the *What Can You Do?* page on the Office of State Fire Marshal Web site.

Mail to: Office of State Fire Marshal
Community Education Unit / What Can You Do? support
4760 Portland Rd NE
Salem OR 97305-1760

Email: oregon.sfm@state.or.us (Subject line: What Can You do?)

HOW TO USE THE CURRICULUM

REVIEW

Begin with reviewing the state standards in health education, language arts, and social sciences, since *WHAT CAN YOU DO?* is aligned with these standards. Oregon standards are included for reference with applicable *WHAT CAN YOU DO?* lessons.

READ

The *Supplementary Materials* section contains *Teacher Notes* and lesson support materials such as work sheet masters. Reading the *Teacher Notes* is necessary to successfully use this curriculum. The core content of each lesson is provided in the *Teacher Notes* section. References to extra resources are included for some of the units if the teacher wishes to expand the lessons beyond the core content provided.

PLAN

Use the scope and sequence as your framework for the five units that cover fire awareness education.

WHAT CAN YOU DO?

is designed to be flexible at the elementary level. Teachers can easily cover the curriculum in a week or add days according to school and community opportunities. For example, a field trip to the fire station or arrangement for a mobile fire escape simulation to be scheduled at school would be a great extension to the fire safety lessons provided. Teachers may also include days needed to complete health education performance tasks and assessments at 3rd and 5th grade benchmark levels.

CHECK FOR COMPREHENSION

Adapt lesson concepts and vocabulary to the abilities of your students.

TEACH AND REFLECT

“Your space,” a reflection space for the teacher, is included with each lesson.

NOTE:

Student folders are a suggested organizational tool.

Informational pieces to be sent home with the students are labeled “Home Connection.”

ANATOMY OF THE CURRICULUM

Unit objectives and skills

Included in the curriculum: Video components in DVD format, timeline cards and timeline, supplemental materials for each lesson, and "Home Connection" life safety materials designed to go home with your students.

Fire Prevention

Objectives
Student will recognize the components of fire prevention.

Skills
• Student will compare and contrast responsible fire use and fire misuse.
• Student will analyze leading causes and influences of home fires.
• Student will assess home hazards.

Introduction
Eight of the ten leading causes of home fires are human actions such as error, carelessness, or intent. Fire awareness education, fire extinguishing and fire code enforcement are critical components of the prevention. The best protection from fire-threatening fire is prevention. Children, adolescents and adults need to recognize the difference between responsible fire use or risky fire behavior.

A request for fire and fire starting tools is imperative. Matches and lighters are adult tools. Adult tools, whether matches, lighters, kitchen knives or yard tools with blades are dangerous when used by children. With increased understanding of responsible fire use, dangerous situations involving fire can be prevented. With information regarding causes of home fires and assessment of home hazards, lessons can be practiced rather than reactive regarding life-threatening and destructive fire.

Key words and concepts
Advisory - writing or speaking in support of something
Combustible - capable of burning
Fire code - rules and standards for fire safety
Fire investigation - study of the scene of a fire to determine "origin and cause" (where the fire started and what caused it)
Fire misuse - using fire and fire tools as a toy or in an unsafe manner
Fire marshal - fire service employee who works in several ways to prevent fires such as inspections, citizen education and code enforcement
Fire load - (rated), such as match or lighter, used to start a fire
Flammable - capable of burning
Hazard - object or situation that may cause personal injury or property damage
Hazardous material -
Responsible fire use - age-appropriate and safe use of the fire and fire tools
Stay away, tell an adult - catch phrase reminding children of the appropriate action to take when faced with potential danger

31104 2

Unit title

Basic introduction to the topic

Vocabulary used in the unit

The materials provided by the curriculum and the preparation required by the teacher are listed for each lesson.

Lesson activities are described

The lessons are designated:

- A (Grades 1 & 2)
- B (Grades 3 & 4)
- C (Grade 5)

Lesson content is sequential: initial concepts are in A lessons. B and C lessons build in level of understanding on preceding lesson(s).

A space has been provided for teacher to place personal notes for the lesson.

A SAFE/UNSAFE FOR CHILDREN

INTRODUCTION
Every day Americans experience the consequences of destructive fire. More than 15,000 fires occur in Oregon each year. On average, forty Oregonians lose their lives in these fires. The majority of structure fires are home fires caused by people.

Children are often at risk because of their curiosity about fire. They do not understand the power of fire and may experiment with it, causing injury, death and property damage. Home fires have been started by children as young as two handling matches or lighters. Reports indicate that by age twelve, 50 percent of all children have misused fire.

More detailed suggestions for the lessons are included in the Supplementary Materials section of this unit.

NOTES:

45404 2

LESSON PLANS
Goal: Student will identify responsible behavior with fire tools.

Materials provided:

- Safety symbols/signs
- Safety/unsafe objects master
- Safe and Unsafe sign master
- Do the Write Thing work sheet
- Letter to parents/guardians
- Crayons (in introductory section)

Teacher preparation:

Grade 1

- Review Teacher Notes, p. 12
- Make 8 copies each of Safe and Unsafe signs (one sign per page) for the lesson.
- Copy the self-made objects found in the home environment sheet as there is one object per page. Post them around the room.
- Student copies of Do the Write Thing work sheets
- Crayons

Do the Write Thing prompt

(Grade 1) Who is responsible for your safety at home?
Describe in words and/or pictures how you work with others to be safe.

(Grade 2) Computer screen saver drawing of "safe/unsafe for children" message

Extended activities
Individual or Class
• Draw pictures of signs in the school building that give fire safety messages. Use Fire Danger, Fire Extinguisher.

Assessment
(C) concept
• Do the Write Thing reflection

31104 2

Content for each lesson is found in *Teacher Notes*.

A, B or C symbols coordinate the notes with the proper lesson.

Supplemental materials, such as work sheets, are included at the end of each unit.

B TEACHER NOTES

DEPUTIZE THE STUDENTS
After defining investigation and the roles of fire investigator and fire marshal, you may wish to "deputize" the students as community fire investigators and/or fire marshals in preparation for the investigation stations.

ROLE OF A FIRE MARSHAL
Fire marshals work in several ways to prevent fires. They inspect buildings to make sure that codes and laws related to fire safety are enforced. They work with builders and city planners when new buildings are being planned to make sure the buildings meet fire safety codes. They visit schools to teach fire safety.

ROLE OF A FIRE INVESTIGATOR
Fire investigators determine where a fire started and what caused it (origin and cause). They collect evidence, interview witnesses and prepare reports on fires in cases where the cause may be arson or criminal negligence. They may testify in court.

They identify faulty products that may pose a fire hazard. For example, Oregon fire inspectors were the first to identify two faulty products that were responsible for fires: Mr. Coffee coffee maker and Cadet Wall Heater.

Both men and women have careers as fire investigators.

INVESTIGATION STATIONS LESSON
The lesson provides real-life situations for students to explore the leading causes of fire in Oregon, practice problem-solving and suggest recommendations. As fire investigators, students paper clip the checkoff work sheet to the front of their What Can You Do? folder and color in the box when finished at each station. Station papers are placed inside student folder.

31104 2

B COOKING FIRE SAFETY TIPS

Leading Causes of Home Fires

Example	Number of Fires
Missed smoldering home or candleless	950
Electrical (extension cords, overloaded circuits, worn cords)	263
Candles	238
Combustibles too close to heat source (heater, stove, etc.)	231
Cigarette-caused fires	196
Children using fire starting tools	86

(Data from Oregon's Administrator for Fire Safety)

600
550
500
450
400
350
300
250
200
150
100
50

Misuse of Home Electrical Candles Combustibles & Heat Sources Cigarettes Juveniles

31104 2
King and Cardo Safety Tips

TEACHING STRATEGIES/LESSON ACTIVITIES IN THE CURRICULUM

Acrostic: a composition in which sets of initial (or final) letters taken in order form a word, phrase, or regular sequence of the alphabet

Brainstorming: students generate many ideas on given topic

Case study: students analyze reports or written histories of a situation, identify problem and recommend solution(s)

Concept/mind map/web: visual technique that starts with a central idea and includes related ideas connected to the central idea

Cooperative groups: students work in small groups on given topic and/or task

Demonstration: use of support materials to provide visual examples and/or show how things work

Discussion: students contribute and build on ideas shared in class

Do the Write Thing: template used as teacher prompt on lesson content or student reflection. Used throughout the curriculum, a master is included in the Introductory Section

Guest speaker: resource for teacher and students who shares expertise and experience on specific topic/profession

Jigsaw: students within group(s) reads section of the whole (i.e. paragraph from article) to learn topic, then share information with others

KWL: visual diagram of thinking process connecting prior knowledge with current questions on topic and learning that actually occurs

Peer teaching: after students master concepts and skills, they teach other students

Simulation: students learn about and respond to real life experiences in structured setting, can be done rotating through stations

Skits (role plays): students act out specific roles/situations, using a script or improvising to reinforce concepts learned and to practice skills

Surveys/inventories: students gather and assess safety-related information

Venn diagram: visual diagram of two or more overlapping circles for comparing and contrasting

WHAT IS “DO THE WRITE THING?”

Do the WRITE Thing is a language arts strategy that is woven throughout the curriculum to support literacy.

Do the WRITE Thing prompts (listed below) can be transferred onto a copy of the master to make a transparency or copies for the students.

Unit 1

A (Grade 1, 2) Write and/or draw one example of a firefighter’s job.

Unit 2

A (Grade 1) Who is responsible for your safety at home? Describe in words and/or pictures how you work with others to be safe.

(Grade 2) Draw a computer screen saver showing a “safe/unsafe for children” message.

B (Grade 3) Use the Home Fire Causes Table. Choose 3 of the causes and suggest ways to reduce the risk.

(Grade 4) If you were a fire marshal, write what you would do to help make your community a safe place to live?

Unit 3

A (Grade 1, 2) Create a computer screen saver reminding families of smoke alarm use and maintenance.

B (Grade 3) Make a mind map of moving water to extinguish fire, including buckets, pumps, water storage methods, fire engines, fire sprinklers.

Unit 4

A (Grade 1) Today I practiced survival skills. The survival skill I am most comfortable with is _____.

A skill I need to practice is _____.

Unit 5

A (Grade 1, 2) Write and/or draw an example of yourself making a fire-safe decision using the STOP-THINK-GO strategy.



DO THE WRITE THING

Sample parent letter

date

Dear Parents/Guardians,

We will be studying fire awareness and disaster preparedness the week of _____. The research-based curriculum we'll be using is called ***What Can You Do?*** The goals are to teach age-appropriate concepts and to provide opportunities for students to practice skills for personal, family and community safety.

During the week, students will be given information and assignments to reinforce classroom lessons. These "home connections" support the importance of our working together to nurture healthy, smart and safe students.

Thank you for sharing the responsibility for fire prevention as well as preparing for and practicing what to do in threatening situations such as fire, earthquakes and floods.

If you have any questions or concerns, please contact me. If you can assist in the classroom on _____, please contact me.

teacher name

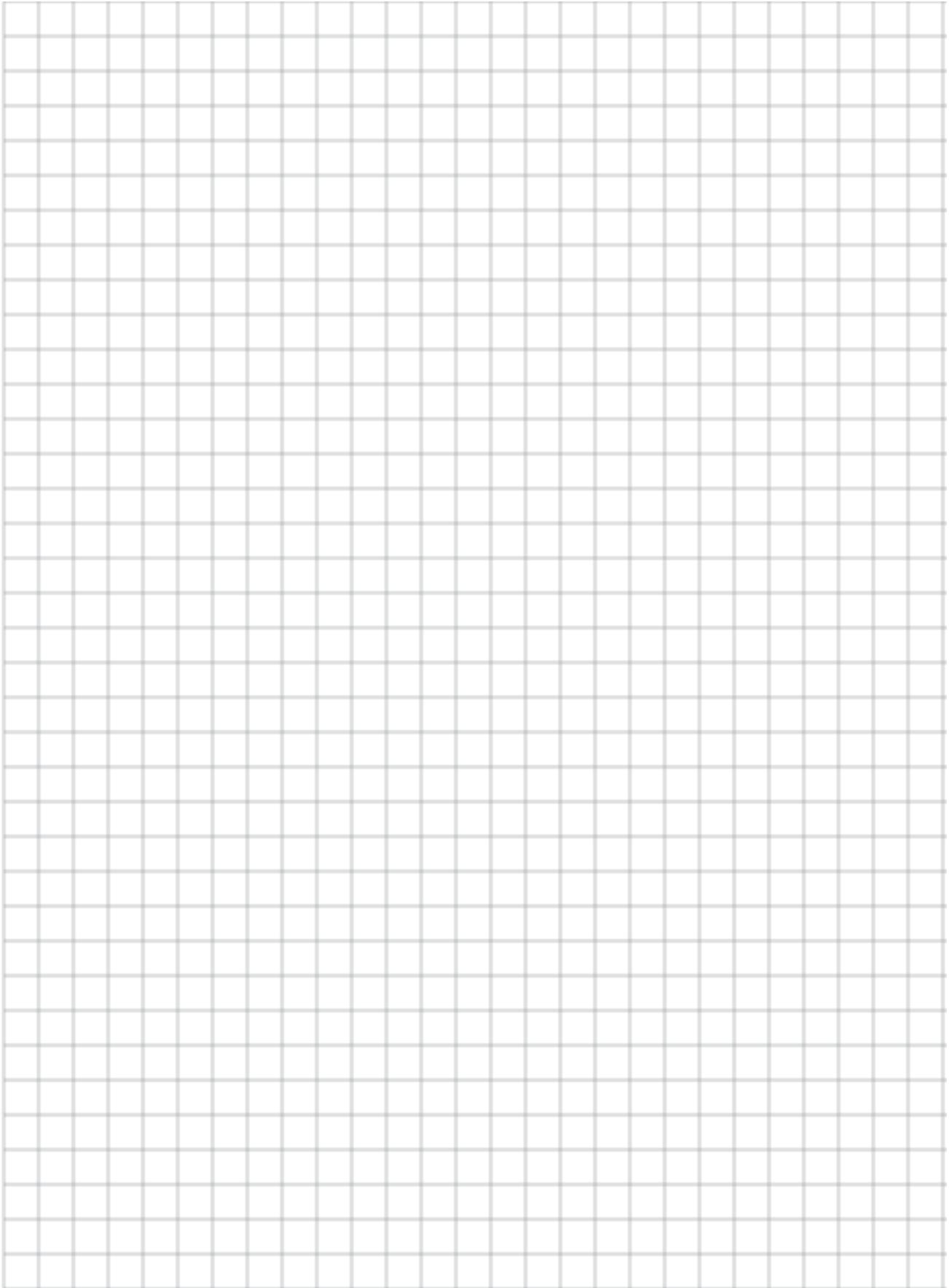
_____ Yes, I can assist in the classroom during the fire awareness and disaster preparedness unit.

parent/guardian name

date

This folder belongs to _____





Scoring Guide for Accessing Information

AI

NHES#2: Students will demonstrate the ability to access valid health information and health-promoting products and services.	
	Source Validity
4	<p>Identifies a specific source of health information, products or services. Provides accurate and complete citations for the specific source(s).</p> <p>Thoroughly evaluates each source to determine its validity and appropriateness (e.g. accessibility, affordability) to the given health situation. Clearly and accurately explains why the sources are valid and appropriate.</p>
3	<p>Identifies source(s) of health information, products or services. Citations for the source(s) are mostly accurate and complete.</p> <p>Adequately evaluates source validity and appropriateness. Provides a general explanation of why the sources are valid and appropriate.</p>
2	<p>Identifies general source(s) of health information, products or services. Citations for the source(s) are inaccurate and/or incomplete.</p> <p>Attempts to evaluate sources to determine their validity and appropriateness, but the evaluation is incomplete or flawed. Does not provide an effective explanation.</p>
1	<p>No source identified or cited.</p> <p>Evaluation of source(s) is flawed. Cannot determine whether the source is valid — OR — does not attempt to evaluate sources to determine validity or appropriateness to the given health situation.</p>

Goals or Action:

Scoring Guide for Advocacy

AV

<i>NHES#7: Students will demonstrate the ability to advocate for personal, family, and community health.</i>				
	Health-enhancing position	Support for Position	Audience Awareness	Conviction
4	Extremely clear, health-enhancing position.	Thoroughly supports position using relevant and accurate facts, data, and evidence.	Strong awareness of the target audience (e.g. the audience's perspective, interests, prior knowledge)	Displays strong and passionate conviction for position.
3	Generally clear, health-enhancing position.	Adequately supports position using facts, data, evidence; support may be incomplete and/or contain minor inaccuracies.	Adequate awareness of audience.	Displays conviction of position.
2	Unclear or conflicting positions.	Inadequately supports position, due to limited information, and/or some inaccuracy, irrelevant facts, data or evidence.	Some evidence of awareness of audience.	Displays minimal conviction for position.
1	No position stated OR position is not health-enhancing.	No accurate or relevant support for position is provided.	No evidence of audience awareness.	Conviction for position is not evident.

Goals or Action:

Scoring Guide for Concepts

C

<i>NHES#1: Students will comprehend concepts related to health promotion and disease prevention.</i>	
	Comprehensiveness
4	Completely and accurately describes relationships between behavior and health. Draws logical conclusion(s) about the connection between behavior and health.
3	Describes relationships between behavior and health with some minor inaccuracies or omissions. Draws a plausible conclusion(s) about the connection between behavior and health.
2	Description of relationship(s) between behavior and health is incomplete and/or contains significant inaccuracies. Attempts to draw a conclusion about the connection between behavior and health, but the conclusion is incomplete or flawed.
1	Inaccurate or no description of relationship(s) between behavior and health. Inaccurate OR no conclusion drawn about the connection between behavior and health.
	Thoroughly covers health topic, showing both breadth (wide range of facts and ideas) and depth (details about facts and ideas). Response is completely accurate.
	Mostly covers health topic, showing breadth and depth, but one or both less fully. Response is mostly accurate, but may have minor inaccuracies.
	Minimal coverage of health topic, showing some breadth but little or no depth. Response may show some inaccuracies.
	No coverage of health topic information. Little or no accurate information.

Goals or Action:

Scoring Guide for Decision-making*

DM

NHES#6: Students will demonstrate the ability to use goal-setting and decision-making skills to enhance health.

Use of a Decision-Making Process

Reaches a health-enhancing decision using a decision-making process consisting of the following steps:

- Identifies a situation that poses a health risk.
- Examines a *comprehensive* set of alternative courses of action.
- *Fully* evaluates the positive and negative health consequences of each alternative course of action.
- Decides on a health-enhancing course of action.

Reaches a health-enhancing decision using a decision-making process consisting of the following steps:

- Identifies a situation that poses a health risk.
- Examines *some* alternative courses of action.
- Evaluates *some* of the positive and negative health consequences of each alternative course of action.
- Decides on a health-enhancing course of action.

Reaches a decision that is health-enhancing. The decision-making process is incomplete or contains flaws. For example:

- May or may not identify a situation that poses a health risk..
- Does not examine alternative courses of action.
- Fails to evaluate the positive and negative health consequences of alternative course of action.
- Decides on a health-enhancing course of action.

Does not reach a health-enhancing decision due to an ineffective decision-making process. Steps of the decision-making process are not evident.

* The two skills of *goal-setting* and *decision-making* are embedded in National Health Education Standard #6. For the purposes of analyzing student work, separate rubrics have been developed.

Goals or Action:

Scoring Guide for Goal-setting*

GS

NHES#6: Students will demonstrate the ability to use goal-setting and decision-making skills to enhance health.	
	Implementation
4	<p>Goal-setting plan is characterized by:</p> <ul style="list-style-type: none"> • An achievable goal, directly leading to long-term health benefits. • Logical, sequential steps. • A process for assessing progress.
3	<p>Goal-setting plan is characterized by:</p> <ul style="list-style-type: none"> • An achievable goal. • Logical steps, but may be incomplete. • A process for assessing progress, but may be incomplete.
2	<p>Goal-setting plan is characterized by:</p> <ul style="list-style-type: none"> • Unrealistic goal or one that would not lead to long-term health benefits. • Insufficient recognition of steps. • No process for assessing progress identified.
1	No goal-setting plan is stated, or plan is vague or unrealistic.

* The two skills of *goal-setting* and *decision-making* are embedded in National Health Education Standard #6. For the purposes of analyzing student work, separate rubrics have been developed.

Goals or Action:

Scoring Guide for Interpersonal Communication

IC

NHES#5: Student will demonstrate the ability to use interpersonal communication skills to enhance health. Communication Strategies				
4	<p>Thoroughly uses appropriate verbal/nonverbal communication strategies* to enhance the health of self and others: <i>*such as ...</i></p> <table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top;"> <p>Skills</p> <ul style="list-style-type: none"> • Negotiation skills • Refusal skills • Conflict management skills </td> <td style="vertical-align: top;"> <p>Behaviors</p> <ul style="list-style-type: none"> • Eye contact • Clear message • “I” messages • Respectful tone </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Body language • Expressing needs, wants, feelings • Restating other points of view • Suggesting an alternative </td> </tr> </table>	<p>Skills</p> <ul style="list-style-type: none"> • Negotiation skills • Refusal skills • Conflict management skills 	<p>Behaviors</p> <ul style="list-style-type: none"> • Eye contact • Clear message • “I” messages • Respectful tone 	<ul style="list-style-type: none"> • Body language • Expressing needs, wants, feelings • Restating other points of view • Suggesting an alternative
<p>Skills</p> <ul style="list-style-type: none"> • Negotiation skills • Refusal skills • Conflict management skills 	<p>Behaviors</p> <ul style="list-style-type: none"> • Eye contact • Clear message • “I” messages • Respectful tone 	<ul style="list-style-type: none"> • Body language • Expressing needs, wants, feelings • Restating other points of view • Suggesting an alternative 		
3	<p>Uses mostly appropriate verbal/nonverbal communication strategies* to enhance the health of self and others.</p>			
2	<p>Attempts to use verbal/nonverbal communication strategies* to enhance the health of self and others, but the selected strategy may be inappropriate or ineffectively employed.</p>			
1	<p>Rarely or never uses appropriate verbal/nonverbal communication strategies* to enhance the health of self and others</p>			

Goals or Action:

Scoring Guide for Analyzing Influences

INF

<i>NHES#4: Students will analyze the influence of culture, media, technology, and other factors on health.</i>	
4	Fully recognizes relevant influence(s) (internal and/or external). Accurately and completely explains how the influence(s) impacts personal, family and/or community health practices and behaviors.
3	Recognizes relevant influence(s). Provides a general explanation of how the influence(s) impacts personal, family and/or community health practices and behaviors.
2	Recognizes influence(s) but does not provide an effective explanation of how the influence(s) impacts personal, family and/or community health practices and behaviors.
1	No relevant influence(s) is identified. Explanation is missing or reveals a misunderstanding of the impact of the influence(s).

Goals or Action:

UNIT 1

FIRE FACTS

Scope and Sequence



COMMUNITY HELPERS

Activity 1 / Grade 1

Teacher-led discussion of firefighter

Activity 2 / Grade 2

Teacher-led discussion of paramedic



TIMELINE OF FIRE

Activity 1 / Grade 3

Concept map and timeline by era

Activity 2 / Grade 4

Concept map and timeline by category



REALITY OF FIRE

Grade 5

Jigsaw and reality of fire from scenarios

If your school has several teachers using this curriculum, lesson plans, supporting teacher notes & student work sheets are available for download by grade level at the Office of State Fire Marshal Web site: www.oregon.gov/OSP/SFM/Curriculum_for_Grades_1-8.shtml

Fire Facts

Objectives

Student will understand the role of fire and its impact on human life.

Skills

Grades 1 & 2

- Student will identify fire station staff, equipment and services to the community.

Grades 3 & 4

- Student will analyze the roles of fire throughout history.

Grade 5

- Student will describe the characteristics of fire.

Introduction

Fire is critical to human survival on earth. For hundreds of years, it has been used as a tool to heat and light our homes as well as cook our food. Fire has also caused destruction, injury, and death.

Most fires are caused by human carelessness. Knowledge about fire and fire safety and respect for fire's power are imperative.

This unit will familiarize students with the training and equipment firefighters use to take care of themselves and their community; students will explore the positive role of fire throughout history; and students will learn that fire is fast, fire is hot, fire is dark and fire is deadly. The reality of fire and its potential harm are discussed as functional knowledge.

Key words and concepts

Apparatus - vehicles used when fighting fire

Dangers of fire - fast, hot, dark, deadly

Energy - the ability to do work

Engineer - member of fire crew, drives and maintains fire engine

Fire chief - in charge of fire crew at fire station and scene of fire

Firefighter - member of fire crew, responsible for firefighting, maintaining equipment, and fire prevention

Forest fire - fire area of land covered densely with trees

Fossil fuel - coal, oil or gas formed from the organic remains of prehistoric plants and animals

Fuel - combustible material such as wood, paper, fabric, grease

Nonrenewable energy - energy sources that get used up and aren't renewed in a long time (oil, coal, wood)

Paramedic - person trained to handle medical emergencies

Passive solar - use of the natural movement of heat and air (rather than mechanical methods) to maintain comfortable temperatures in a building. Active solar uses mechanical aids such as solar panels

Renewable energy - energy sources that do not get used up (sun, wind)

SCBA - Self Contained Breathing Apparatus

Structural fire - residential or building fire

Smoke - a gaseous product that arises from a burning substance

Solar energy - use of the energy hitting earth as sunlight

Sun energy - energy from sun stored in plants or fuels like coal and wood

Turnout Clothes - protective clothing worn when fighting fire



REALITY OF FIRE

INTRODUCTION

This lesson introduces students to the physical characteristics of fire — fast, hot, dark, deadly — and how they make fire dangerous. Students will study four historic fire disasters to determine what happened, what went wrong, what lessons people learned and what code changes were made as a result.

More detailed suggestions for the lesson are included in the *Supplementary Materials* section of this unit.

NOTES:

LESSON PLANS

Goal: Student will understand what makes fire dangerous and be able to describe its physical characteristics.

Materials provided:

- What makes fire dangerous? work sheet
- Jigsaw master for transparency
- 4 disaster scenarios:
 - 1679, Massachusetts
 - 1911, New York
 - 1940, Mississippi
 - 1942, Massachusetts
- Teacher's key to disaster scenarios
- Disaster scenarios key questions work sheet
- INF rubric (in introductory section)

Teacher preparation:

- Review Teacher Notes, p. 28
- Make copies for class of What makes fire dangerous?
- Make transparency of Jigsaw
- Make copies for groups of disaster scenarios and key questions work sheet

Extended activities

Individual

- Newspaper search for fire-related articles and written reaction paper (report and respond) answering the 3 key questions from the disaster scenario work sheet.

Class

- Read and display Reality of Fire individual news stories aloud, or. ...
- Organize and print news stories for class newsletter to send home.

Grade 5

jigsaw and reality of fire from scenarios

Introduction. Remind students that they have studied fire as a useful tool. This lesson considers the danger that out-of-control fire poses to life and property.

Divide class into four groups and have each select a recorder and reporter.

Distribute *What Makes Fire Dangerous?* and assign one article to each group. Students are to read their assigned characteristic of fire, then share concepts and statistics from article with class. *(Teacher may choose to structure reporting to class using the Jigsaw activity.)*

Distribute disaster scenarios and key questions work sheet to groups. Have them read their scenario and answer the three key questions.

Groups will summarize their scenario for the class using the answers to the three key questions. They may follow a reporter/interview format with group members playing different roles. Finally, teacher will share actual code changes that were implemented.

Assessment

(Inf) influences

Group summaries of characteristics of fire for the Jigsaw activity and group answers to three key questions from the scenarios demonstrate student level of understanding.

Supplementary materials



TEACHER NOTES

ORGANIZING IDEA

We've looked at fire as a **useful tool** (*Unit 1/Fire Facts, Lesson B, Timeline of Fire*).

We've looked at **ways to extinguish fire** (*Unit 3/Fire Safety Inventions, Lesson B, Technology Timeline*). The curriculum also looks at **fire prevention** through hazard reduction and personal decisions (*Unit 2/Fire Prevention, Lessons A and B*) and **fire survival skills** (*Unit 4/Survival Skills, Lesson A, Survival Skills Station*).

The other side of the story is that fire, out of control, is a destructive force and an enemy of life and property.

Building codes that address fire safety are one way society attempts to make buildings safer in order to prevent or limit the loss of life and property from fire. A few examples of such codes are standards for materials used, methods of construction and rules about exit and occupancy.

Fire disasters such as the Triangle Shirtwaist Factory fire in 1911 often lead to code changes because people learn from disasters and hope to minimize the chance that such a disaster will happen again.

WHAT IS FIRE? WHAT ARE ITS CHARACTERISTICS?

Fire is the result of a chemical reaction between oxygen in the air, heat and flammable material (fuel).

Fire is fast, hot, dark and deadly. It can spread at frightening speed. A candle can turn a room into a blazing inferno within minutes while a heavy wind can turn a small blaze into a major disaster.

Students often believe things about fire that are untrue and may believe they can control it. In Oregon, at least 500 fires requiring a fire engine response are started by juveniles each year.



TEACHER'S KEY TO DISASTER SCENARIOS

General notes:

Readability scores for the scenarios are between 4.4 and 6.2. You may wish to assign particular scenarios to groups based on what you know of their reading abilities.

The same key questions are asked about each scenario:

- 1) What happened? How and where did the fire start? How many died or were hurt?
(It may not have been determined how or exactly where a fire started.)
- 2) What went wrong and what lessons did people learn?
(The things that went wrong and the lessons learned are fairly obvious.)
- 3) What code changes would you make?
(This is an opportunity for students to problem-solve and they may generate good ideas for code changes that were not implemented at the time — either because no one thought of them or because technology to implement them didn't exist at the time.)

After students problem-solve, share the following actual code changes with them.

1679

Boston, Massachusetts

Grade level: 4.9

Changes to code

- 1) Buildings must be built of stone or brick.
- 2) Roofs must be covered with slate or tile.

1911

Triangle Shirtwaist Company, New York

Grade level: 6.2

Changes to code

- 1) The fire commissioner could enforce fire safety education and fire drills.
- 2) Escape routes could not be blocked.
- 3) Doors must be unlocked during business hours.
- 4) Factory doors must open outward.
- 5) Sprinkler systems were required if more than twenty-five people worked above ground level.

1940

Natchez Dance Hall, Mississippi

Grade level: 4.5

Changes to code

Flammable or explosive furnishing or decorations are not allowed.

1942

Coconut Grove Restaurant, Massachusetts

Grade level: 5.7

Changes to code

- 1) Public places may not have more people in them than allowed.
- 2) Flammable decorations may not be used in public places.
- 3) Public places must have at least two exits* and they must not be blocked.
- 4) Exits must be lit, clearly marked and doors must open to the outside.

*If over 600 people are allowed—three exits.
If over 1,000 people are allowed—four exits.



WHAT MAKES FIRE DANGEROUS?

Fire is dangerous because...

FIRE IS FAST.

A simple flame can become a big fire in thirty seconds. That's how fast curtains catching fire from a space heater can turn into a major fire. Your house can be covered in flames in as little as five minutes. A fire doubles in size every thirty seconds.

"Flashover" happens when everything in a room becomes superheated and bursts into flames at the same time. Flashover can occur in as little as three minutes.

FIRE IS HOT.

Fire's heat can be more dangerous than its flames. The air gets so hot it can scorch your lungs. When that happens you can't breathe. It can be so hot your clothing fuses (melts) to your skin.

In a fire, the temperatures in a room can vary a lot. Near the floor, the air can be 90° F. At eye level, the air can be over 600° F. Near the ceiling, the air can reach 1000° F in just five minutes.

FIRE IS DARK.

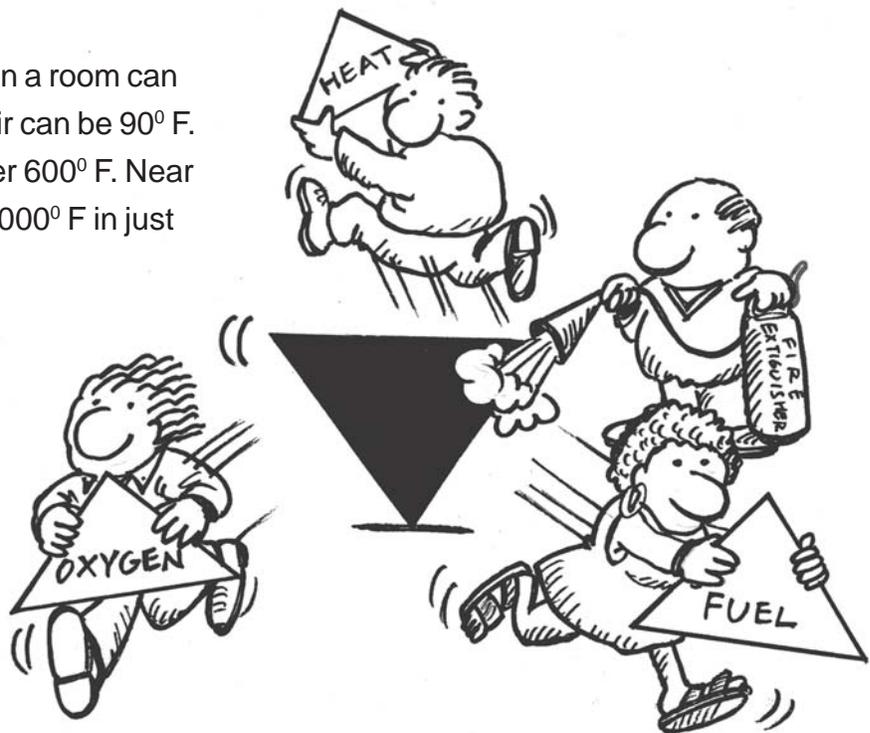
You may think fire is bright, but it is not. It actually becomes pitch black as smoke rolls down from the ceiling.

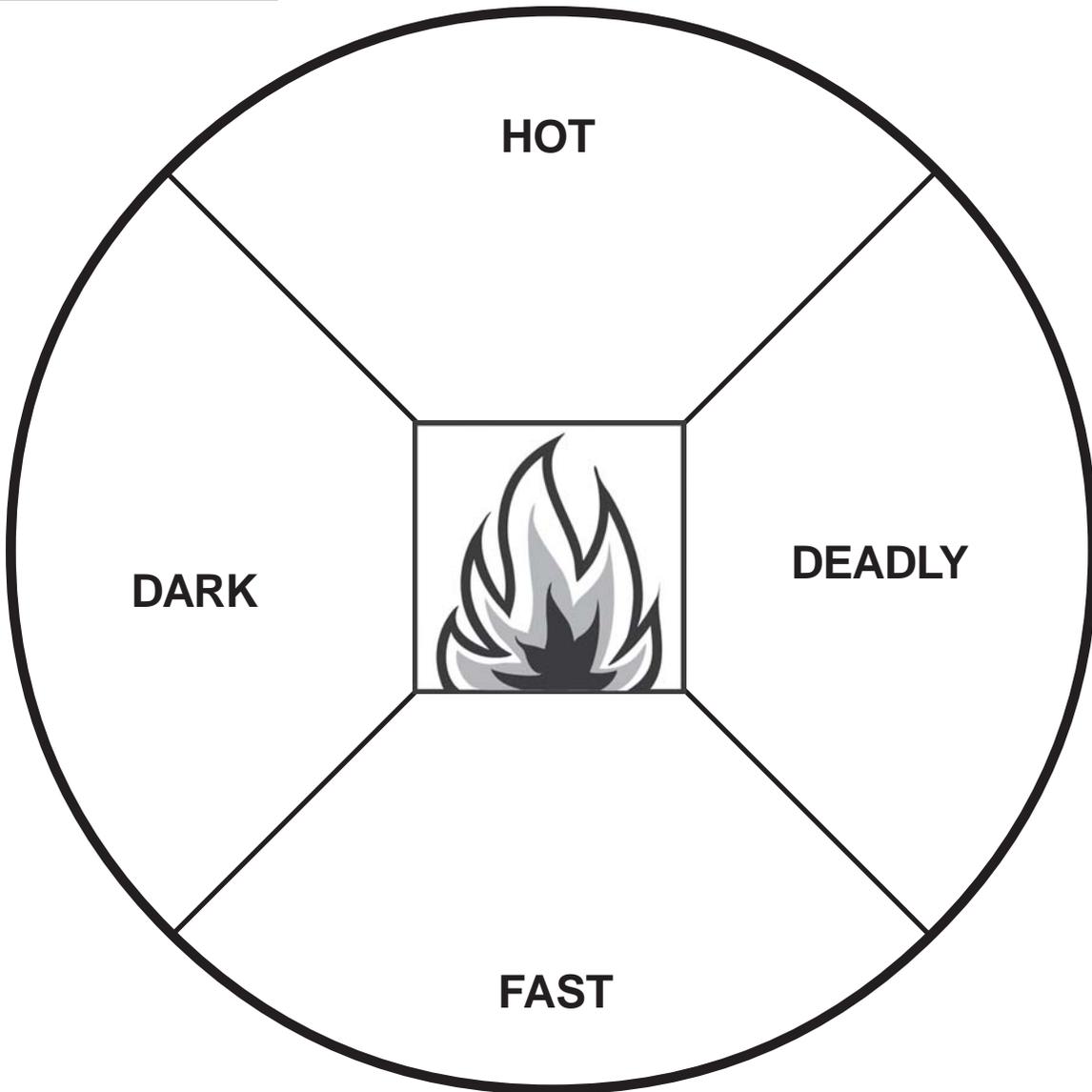
Imagine yourself unable to see. Imagine trying to find your way out of a room that is completely black.

FIRE IS DEADLY.

Fire uses the oxygen you need to breathe. Fire produces poisonous gases.

Smoke and toxic gases kill more people than flames do. Breathing even a little of these gases can make you confused and sleepy. You could pass out and die in minutes.







FIRE DISASTERS ARE STRICT TEACHERS

1679

BOSTON (MASSACHUSETTS)

Background

Buildings were close together and made of wood. Roofs were made of thatch. (Thatch is straw.) Wood and straw burn easily.

There were no laws about building with things that resist fire.

People often stored gunpowder in their homes. It was flammable.

Water to fight fires came from wells and streams or rivers.

Boston had no fire prevention plans.

Boston had many fires before the 1679 fire. In fact, in 1676 the city bought a hand-operated water pump.

The pump that Boston bought in 1676 was a wood box with handles. It was carried to a fire. People filled the pump with buckets of water.

The water was carried by a "bucket brigade." This is a line of people passing buckets of water from person to person. A lot of water spills from the buckets and any water left in the buckets is thrown into the pump.

The fire

This was an arson fire (started on purpose). The fire spread from roof to roof and building to building. In all, 150 buildings burned. When the fire spread to the waterfront, ships in the harbor burned.

Key questions

- 1) What happened? (How and where did the fire start? How many died or were hurt? What was destroyed?)
- 2) What went wrong and what lessons did people learn?
- 3) What code changes would you make?



FIRE DISASTERS ARE STRICT TEACHERS

1911

TRIANGLE SHIRTWAIST COMPANY (NEW YORK)

Background

The Triangle Shirtwaist Company employed about 600 people to sew clothes. Most workers were young women. They worked fourteen-hour days, sixty to seventy-two hours a week, for \$1.50 a week.

The shirtwaist company used the eighth, ninth and tenth floors of the Asch building. The building was ten stories high and designed to be fireproof. There was only one outside fire escape for the whole building.

There had been four fires before the Triangle Shirtwaist fire. The building had been reported as unsafe because there were not enough exits. Most exit doors were kept locked. They opened to the inside.

Triangle Company workrooms were full of flammable cloth. Sewing machines were in solid rows in front of the doors. Gas lighting was used and many people smoked.

There were no fire extinguishers. The only safety measures were twenty-seven buckets of water and the fire escape.

The fire

The fire began in a rag bin on the eighth floor and was put out in half an hour. People and the contents of the eighth, ninth and tenth floors burned, but the floors and walls did not.

The fire melted the fire escape. The elevator stopped working and fire quickly blocked the stairways.

Some people escaped, but 146 people burned to death or died when they jumped out the windows or down the elevator shafts.

Key questions

- 1) What happened? (How and where did the fire start? How many died or were hurt? What was destroyed?)
- 2) What went wrong and what lessons did people learn?
- 3) What code changes would you make?



FIRE DISASTERS ARE STRICT TEACHERS

1940

NATCHEZ DANCE HALL (MISSISSIPPI)

Background (p. 162)

The dance hall was long and narrow. It was one story high.

The roof and sides were made of metal which did not burn. The metal contained the fire and made the inside of the building like an oven.

There was one main exit and it was partly blocked. The doors opened into the building.

The windows were nailed shut.

Spanish moss was hung for decoration. Spanish moss is flammable.

A popular band was playing and over 700 people were inside.

The fire

Fire started at one end of the building. The Spanish moss caught fire and fell. The moss set people's clothing on fire.

People near the exit escaped. But 207 people could not escape and they died. 200 people lived but were burned.

Key questions

- 1) What happened? (How and where did the fire start? How many died or were hurt?
What was destroyed?)
- 2) What went wrong and what lessons did people learn?
- 3) What code changes would you make?



FIRE DISASTERS ARE STRICT TEACHERS

1942

COCONUT GROVE RESTAURANT (MASSACHUSETTS)

Background (p. 181)

The building was one story with a basement.

Decorations were flammable and cloth covered the ceiling and walls.

The main exit door revolved. Some exit doors opened to the inside. Some were locked.

About 1,000 people were inside but only 600 were allowed.

The fire

The fire began in the basement. Decorations caught fire (probably from a hot light bulb).

Fire spread up the stairs to the main floor. The cloth on the walls and ceiling caught fire.

People ran for the main exit. The door stuck and people couldn't get out. About 200 people died.

Another 100 people died at other exits because doors opened into the building and they couldn't get out.

Some people escaped out windows.

Many people were killed by smoke and gases. Smoke and gases from fire are poison.

Key questions

- 1) What happened? (How and where did the fire start? How many died or were hurt? What was destroyed?)
- 2) What went wrong and what lessons did people learn?
- 3) What code changes would you make?



DISASTER SCENARIOS

key questions work sheet

1) What happened? _____

How and where did the fire start? _____

How many died or were hurt? _____

What was destroyed? _____

2) What went wrong and what lessons did people learn? _____

3) What code changes would you make? _____

A RESOURCES

<http://www.nwrel.org/indianed/indianreading/index.html>

Beil, Karen. *Fire in Their Eyes*. San Diego: Harcourt Brace, 1999.

Demarest, Chris. *Firefighters A-Z*. Simon and Schuster, 2003.

Demarest, Chris. *Smokejumpers One to Ten*. Simon and Schuster, 2002.

Fortney, Mary. *Fire Station Number 4*. Minneapolis: Carolrhoda Books, 1998.

Gentle, Victor and Perry, Janet. *Fires*. Gareth Stevens Publishing, 2001.

Landau, Elaine. *Smokejumpers*. Millbrook Press, 2002.

Maze, Stephanie and O'Neil Grace, Catherine. *I Want to be a Firefighter*. San Diego: Harcourt Children's Books, 1999.

McGillian, Jamie. *On the Job with a Firefighter*. Barrons, 2001.

Simon, Seymour. *Fighting Fires*. SeaStar Books (Chronicle Books), 2002.

B C RESOURCES

<http://www.darvill.clara.net/altenerg/fossil.htm> (science site about energy)

Web site of the California Energy Commission, <http://www.energyquest.ca.gov/story/index.html>

Web site of the U.S. Department of energy: <http://www.eia.doe.gov/kids/>

Masoff, Joy. *FIRE!* Scholastic, 1998.

Taming Fire. Scholastic, 1994.

Technology at Home. <http://www.pbs.org/wgbh/aso/tryit/tech/#> (explores the development of 20th century household technology).

<http://www.npr.org/programs/watc/features/2001/010325.triangle.html> (Interview with a 107-year-old survivor of the Triangle Shirtwaist fire)

UNIT 2

FIRE PREVENTION

Scope and Sequence

A

SAFE / UNSAFE FOR CHILDREN

Activity 1/Grade 1

Safety team

Activity 2/Grade 2

Computer screen savers

B

INVESTIGATION STATIONS

Activity 1/Grade 3

Problem-solving stations 1, 3, 5

Activity 2/Grade 4

Problem-solving stations 2,4,6

C

HOME FIRE HAZARDS SEARCH

Grade 5

Home fire inspection survey

If your school has several teachers using this curriculum, lesson plans, supporting teacher notes & student work sheets are available for download by grade level at the Office of State Fire Marshal Web site: www.oregon.gov/OSP/SFM/Curriculum_for_Grades_1-8.shtml

Fire Prevention

Objectives

Student will recognize the components of fire prevention.

Skills

- Student will compare and contrast responsible fire use and fire misuse.
- Student will analyze leading causes and influences of home fires.
- Student will assess home hazards.

Introduction

Eight of the ten leading causes of home fires are human actions such as error, carelessness, or intent.

Fire awareness education, fire engineering and fire code enforcement are critical components of fire prevention.

The best protection from life-threatening fire is prevention. Children, adolescents and adults need to recognize the difference between responsible fire use or risky fire behavior.

A respect for fire and fire-starting tools is imperative. Matches and lighters are adult tools. Adult tools, whether matches, lighters, kitchen knives or yard tools with blades are dangerous when used by children.

With increased understanding of responsible fire use, dangerous situations involving fire can be prevented. With information regarding causes of home fires and assessment of home hazards, families can be proactive rather than reactive regarding life-threatening and destructive fire.

Key words and concepts

Advocacy - writing or speaking in support of something

Combustible - capable of burning

Fire code - rules and standards for fire safety

Fire investigation - study of the scene of a fire to determine "origin and cause" (where the fire started and what caused it)

Fire misuse - using fire and fire tools as a toy and/or in an unsafe manner

Fire marshal - fire service employee who works in several ways to prevent fires such as inspections, citizen education and code enforcement

Fire tool - object, such as match or lighter, used to start a fire

Flammable - capable of burning

Hazards - objects or situations that may cause personal injury or property damage

Hazmat - abbreviation of "hazardous materials"

Responsible fire use - age-appropriate and safe use of fire and fire tools

Stay away: tell an adult - catch phrase reminding children of the appropriate action to take when faced with potential danger



HOME FIRE HAZARDS SEARCH

INTRODUCTION

These lessons help students identify common home fire hazards. Students will begin a home fire inspection survey in class and take it home for completion. A fire-safe family is a family that has planned to avoid fire hazards. The parent connection is an important component of this lesson. More detailed suggestions for the lessons are included in the *Supplementary Materials* section of this unit.

NOTES:

LESSON PLANS

Goal: Student will assess home fire hazards.

Materials provided:

- Home Fire Inspection worksheet (Home Connection)
- Home Fire Hazards master
- Key to Home Fire Hazards
- ADV rubric (in introductory section)

Teacher preparation:

- Review *Teacher Notes*, p. 34
- Make Home Fire Hazards transparency
- Make copies of Home Fire Inspection worksheet

Extended activity

Individual

- Hazmat CD. Computerized activities explaining and illustrating hazardous materials*

Class

- Research environmental health topics related to personal, family and community health.

Note:

* The Office of State Fire Marshal has an interactive CD that teaches about hazardous materials available free for classroom use.

Grade 5

home fire inspection survey

Define hazard. Explain fire codes. Explain that the fire department does not have jurisdiction to inspect private homes for potential fire hazards. This means that fire safety is a personal responsibility.

Display transparency of home hazards. Have students silently identify and list the hazards they see on paper. After five minutes of individual search, identify and discuss all hazards as a class. There are twenty-one fire hazards and two other safety hazards. Challenge the class to find them all.

An alternative approach would be to divide the students into teams and see which team finds the most hazards.

Home Connection: The Home Fire Inspection worksheet is an activity designed to be taken home and completed with parents or guardians.

Assessment

(ADV) advocacy

Home hazard search, report, and discussion with parent(s). Worksheet signed and dated.

Supplementary materials



TEACHER NOTES

WHAT ARE HAZARDS?

A hazard is a source of danger. Natural hazards are events of nature such as earthquakes. Home fire hazards are unsafe conditions that could lead to a fire. It's important to become aware of potential fire hazards and to take steps to correct them in order to prevent fires.

WHAT ARE CODES?

Codes are a set of rules and standards that guide the application of fire safety laws. Construction codes are applied at the time a building is constructed. Fire codes are applied to existing public or commercial buildings and guide the fire marshal in making a fire safety inspection.

Codes are updated regularly with the goal of making buildings safer and stronger, or to make the codes themselves easier to understand.

Construction codes govern all buildings—public, private or commercial. Fire safety features such things as occupant capacity, the number of exits and exit signs, and the presence of smoke alarms and fire sprinklers are part of the construction code.

Fire codes govern how many people can attend an outdoor assembly, storage of flammable/combustible materials, handling of fireworks and outdoor burning.

CAN THE FIRE DEPARTMENT INSPECT A PRIVATE HOME?

Once a private home is completed, the fire department only has jurisdiction in three areas:

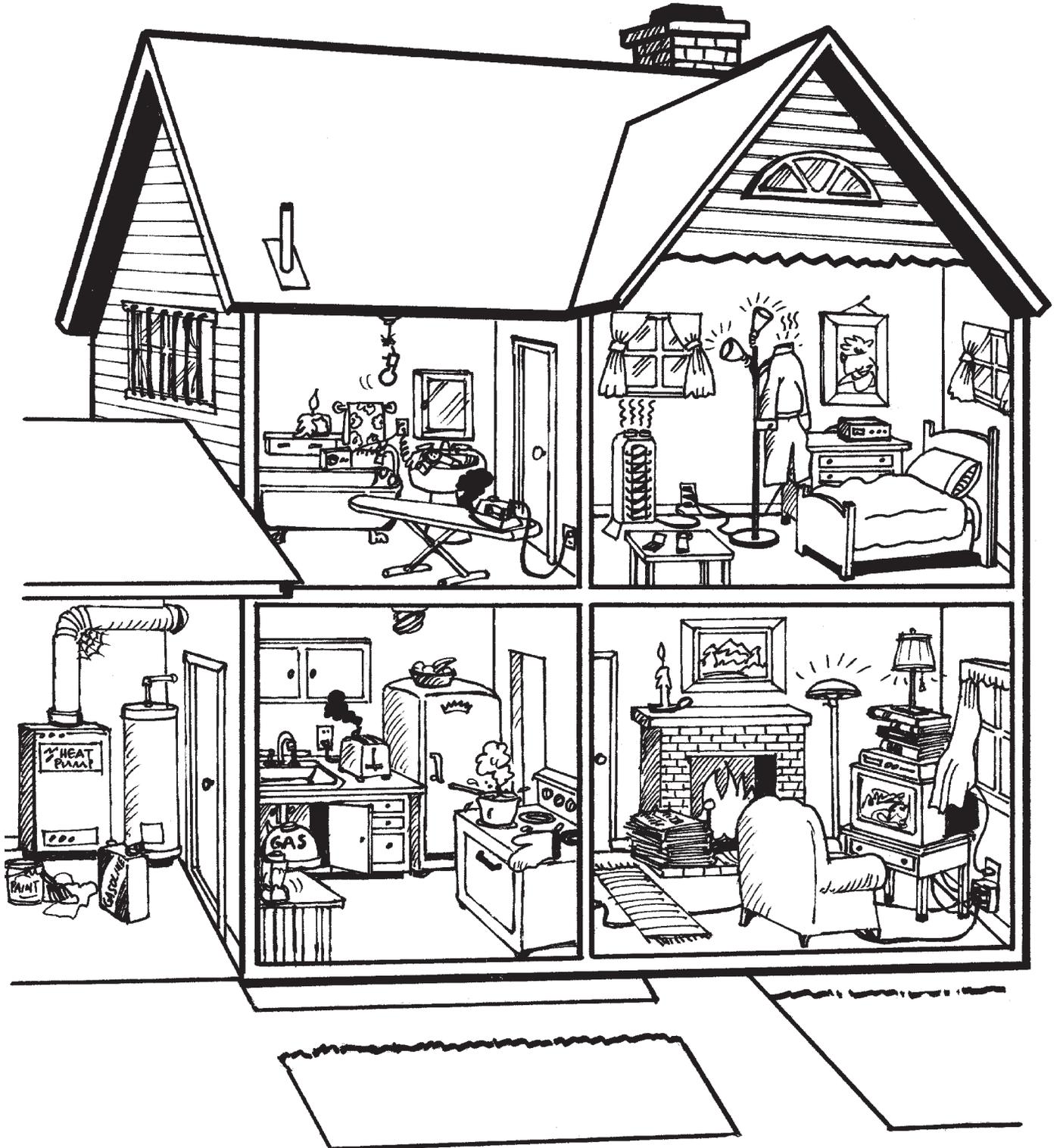
- 1) Access by the fire department must meet definite standards.
- 2) A water supply sufficient to fight a fire must be available.
- 3) The location of fire hydrants must meet city code.

For completed private homes, the local fire department and the Office of State Fire Marshal have no authority to enforce compliance with fire codes.

Home fire safety is the responsibility of those living in the home.



HOME FIRE HAZARDS TRANSPARENCY





Home Fire Hazards (key)

1. unattended candle
2. candle near curtain
3. fireplace with no screen
4. overloaded wall socket
5. matches and lighters available
6. clothing draped over lamp
7. smoke alarm broken
8. security bars over window prevent exit in event of fire
9. unattended pot on stove
10. rugs placed over extension cord
11. frayed, cracked wiring
12. combustibles (newspapers) too close to fireplace
13. pot holder on stove near burner
14. papers, oily rags near water heater and furnace
15. flammable liquids (gas) near water heater
16. gasoline stored in house
17. portable heater too close to combustibles (curtain)
18. iron left on
19. toast burning in toaster
20. lamp on stack of books easily tipped over
21. curtain too close to TV and lamp
22. radio on edge of bath tub (not a fire hazard, but very unsafe)
23. hair dryer on edge of sink (not a fire hazard, but very unsafe)



HOME FIRE INSPECTION WORKSHEET

Smoke alarms

- present outside each sleeping area
- present in each bedroom
- present on every level
- cleaned this month
- alarms tested today, all working

Multipurpose extinguisher (labeled “ABC”)

- extinguisher present, location known
- extinguisher inspected this year
- family knows how to use extinguisher

Home escape plan

- two ways out of each room identified
- outside meeting place identified
- family practiced home escape plan

Candles

- burning candles are never left alone and are away from things that can burn
- candle holders are sturdy metal, glass or ceramic
- small children and pets are kept away from burning candles
- candles do not have flammable items embedded in them (twigs, leaves)

Kitchen

- cooking food is always attended
- stove top, oven, exhaust fan are clean
- dish towels, pot holders, curtains are away from stove burners
- pan handles are turned in when cooking
- an ABC fire extinguisher is handy



Instructions

Place a check mark in the circle in front of each inspection task as that inspection is completed. When the entire inspection is complete, sign and date it on the back, and return to class.



Fireplace, wood stove, barbecue

- kindling, fire logs and wood are kept at least three feet from heat source
- wood or barbecue ashes are disposed of in metal container
- fireplace or wood stove is not used to burn garbage, greenery or paper
- chimney or wood stove flue has been cleaned and inspected this year by a qualified chimney sweep

Housekeeping

- paper/other trash is at least three feet away from furnace and water heater
- flammable liquids are stored in approved and labeled containers, never inside the house
- basement, garage and other storage places are free of rubbish, oily rags, papers, mattresses, etc.
- escape routes are clear of clutter
- clothes dryer's lint trap and outside vent line are clean

Electrical

- no cracked, frayed cords found
- no extension cords being used
- extension cords in temporary use are heavy-duty and UL listed
- electrical cords not covered by rugs, carpet, furniture or other materials
- no overloaded circuits (example: toaster and coffee maker on same outlet)
- electrical appliances are working properly; if not, they have been "retired" for repair

If the fire department is needed

- family knows how to call 9-1-1
- fire department can see house number from street

Inspection completed _____ (date)
by _____ (student)
and _____ (parent or guardian)

UNIT 3

FIRE SAFETY INVENTIONS

Scope and Sequence

A

SMOKE ALARMS AND ADVOCACY

Activity 1/Grade 1

What to do if a smoke alarm sounds

Activity 2/Grade 2

Case studies, collecting data and graphs

B

FIRE SUPPRESSION TECHNOLOGY

Activity 1/Grade 3

Fire suppression technology mind map

Activity 2/Grade 4

Specialized fire suppression methods

C

FIRE HISTORY RESEARCH

Grade 5

KWL brainstorming, recording, research

If your school has several teachers using this curriculum, lesson plans, supporting teacher notes & student work sheets are available for download by grade level at the Office of State Fire Marshal Web site: www.oregon.gov/OSP/SFM/Curriculum_for_Grades_1-8.shtml

Fire Safety Inventions

Objectives

Student will advocate for use and maintenance of smoke alarms.

Skills

Grades 1 & 2

- Student will demonstrate correct response to smoke alarm, know how to test one and will advocate for their use.

Grades 3 & 4

- Student will explore the development of fire-suppression technology over time and construct chronological sequences.

Grade 5

- Student will research a selected fire history topic.

Introduction

The responsibility for preventing fires that cause injury or death is first and foremost a personal one. Yet, fire happens. Every 74 seconds, a home burns. Eight out of ten fire deaths in the United States occur in the home.

The physical, emotional, and financial consequences of fire have led to increasingly sophisticated fire warning and fire suppression technology over the years. Smoke alarms, sprinkler systems, fire-resistant materials and fire-fighting equipment have become life-saving inventions of the 21st century.

Smoke alarms and home fire sprinklers cut the risk of dying in a home fire by 82 percent. Even though smoke alarms are required in every home, they're designed to detect, not control, a fire. Home fire sprinklers provide the next level of protection and fight fires immediately. They can contain, and even extinguish, a fire. It's like having a firefighter in your home twenty-four hours a day, seven days a week.

The intent of this unit is to provide information that may help protect families and homes from fires.

Key words and concepts

Bucket brigade - a line of people who pass buckets up and down the line to move water from a water source to a fire or fire engine

Cistern - an underground tank for storing water

Cross-section - a piece of something cut off at right angles to its length

Fire sprinklers - water-carrying devices in the wall or ceiling that spray water when they sense a fire near them. (Only the fire sprinkler(s) nearest to the fire activate.)

Fire suppression equipment - is used to extinguish fires

Fire warning equipment - alerts when fire or smoke is present

Innovation - a new idea, method or device

Smoke alarm - an alarm that emits a sound or bright, flashing light as a warning when it detects smoke

Technology - use and knowledge of tools and crafts

Water main - a pipe for carrying water



FIRE HISTORY RESEARCH

INTRODUCTION

The history of the development of fire suppression technology is a fascinating and multilevel topic. Several technologies were touched on in the Moving Water video. This lesson will enable students to research a self-selected topic and answer questions for themselves.

More detailed suggestions for this lesson are included in the *Supplementary Materials* section of this unit.

NOTES:

LESSON PLANS

Goal: Student will develop a deeper knowledge of a selected fire history topic through research.

Materials provided:

- KWL worksheet
- Topic List
- Recommended Web Sites
- Timeline
- AI rubric (in introductory section)

Teacher preparation:

- Review Teacher Notes, p. 22
- Timeline available for class review
- Copies (or transparencies) of Topic List and Recommended Web Sites
- Copies of KWL worksheet

Extended activity

Individual

- Create model of existing or futuristic innovation related to a positive use of fire or fire suppression.

Class

- Research paper or project presentation.
- Develop a class book with the completed research.

Grade 5

KWL brainstorming, recording, research

Introductory activity, conducted prior to the lesson so that students can select their topics prior to library time for research.

- Introduce the process of the KWL activity.
- Begin by brainstorming and recording student responses to "what we know about fire suppression technology" from the lessons in Grades 3 and 4.
- Demonstrate brainstorming and recording "what we want to know" about one or two of the subjects.
- From this list, students choose an area of interest and submit for approval.

Provide classroom and library time for research and completion of KWL activity.

After class research is completed, students record responses under "what we learned."

Assessment

(AI) accessing information

Completed KWL research papers.

Supplementary materials



TEACHER NOTES

THE KWL ACTIVITY

The KWL activity determines what students

- **KNOW**,
- what they **WANT** to know
- what they **LEARN**

about a chosen subject.

The activity follows a structured format to guide students' learning process. A list of topics drawn from the *Moving Water* video is provided to remind students of topics they have covered. A recommended list of Web sites to use for research is included to make the students' time in the media center or library efficient.

Depending on the amount of time designated for the activity, students may be assessed on their completion of the KWL work sheet, presentation of their research findings to the class, or a lengthier research paper if the column on the KWL work sheet has insufficient space for what they have learned.

(Topic)

K
(List what you already **know**
about the topic.)

(name)

W
(List questions about
what you **want to know**
about the topic.)

L
(Using the questions as a guide,
write what you have **learned**.
You may use the back.)

TOPIC LIST

Buckets for fire fighting

Bucket brigade

Ctesibius's pump

Fire boat

**Fire engines and how they
moved**

Fire plug (or hydrant)

Fire sprinklers

Ladder truck

Steam engine

Extra topics:

Fire dogs and fire horses

Tidbits and trivia

RECOMMENDED WEB SITES



American Local History Network

America's Age of Steam (Steam Pumpers)—Firefighting

<http://www.usgennet.org/usa/topic/steam/IndRev/Fire.html>

Early American fire pumpers were man-powered machines

America's Age of Steam (Fire Boats)—Firefighting

<http://www.usgennet.org/usa/topic/steam/IndRev/Boat002.html>

Photos of fire boats



Firefighter's Real Stories—Tidbits

<http://www.firefightersrealstories.com/tidbits.html>

Trivia—Oldest firehouse, steam pumpers, engine decoration, fire boats, fire poles



Hall of Flame Fire Museum

<http://www.hallofflame.org/>

Firefighting apparatus images and other topics about firefighting

Hand and Horse drawn

<http://www.hallofflame.org/hand.htm>

Motorized

<http://www.hallofflame.org/motorize.htm>



Fire Dogs and Fire Horses

<http://www.publicsafety.net/dalmatian.htm>

Images and info about horse drawn apparatus and the role of the horses and the fire dog



Wikipedia

Fire hydrants (fire plugs)

http://en.wikipedia.org/wiki/Fire_hydrant

History, images, operation construction, nicknames

Fire apparatus

http://en.wikipedia.org/wiki/Fire_apparatus

Engine & truck companies, aerial apparatus, brief history of fire fighting equipment, image gallery of engines and trucks

Fire sprinkler systems

http://en.wikipedia.org/wiki/Fire_sprinkler

history, operation, types of sprinklers

continued on page 26

Dalmatian dogs (aka firehouse dogs)

<http://en.wikipedia.org/wiki/Dalmatian>

Variety of information about the breed



Answers.com (dictionary/encyclopedia)

Fire hydrants

<http://www.answers.com/topic/fire-hydrant>

definition, background, types and designs

Fire apparatus

<http://www.answers.com/fire%20apparatus>

definition (same information available in Wikipedia)

Fire sprinklers

<http://www.answers.com/fire%20sprinklers>

definition



About: Inventors

Fire sprinklers

<http://inventors.about.com/library/inventors/blfiresprinkler.htm>

fire sprinkler systems, firefighting equipment, history of American fire departments



How Stuff Works

Steam engines

<http://science.howstuffworks.com/steam.htm>

Steam engine operation, boilers, animated graphics of working steam engines

Fire Engines

<http://science.howstuffworks.com/fire-engine.htm>

How and what a fire engine does. Links to smoke alarms, fire extinguishers, and video



For younger students, but good resource

<http://www.nfpa.org/sparky/firetruck/index.htm>

Parts of a truck, photo gallery, fire truck game

UNIT 4

SURVIVAL SKILLS

Scope and Sequence

A

SURVIVAL SKILLS STATIONS

Activity 1/Grade 1

Fire survival skills demonstrations & stations

Activity 2/Grade 2

Earthquake survival skills practice

B

FIRE ESCAPE PLAN

Activity 1/Grade 3

Creating fire escape plans

Activity 2/Grade 4

Earthquake survival plans for the home

C

DISASTER PREPAREDNESS PLAN

Grade 5

Demonstration, discussion, disaster plan and kit

If your school has several teachers using this curriculum, lesson plans, supporting teacher notes & student work sheets are available for download by grade level at the Office of State Fire Marshal Web site: www.oregon.gov/OSP/SFM/Curriculum_for_Grades_1-8.shtml

Survival Skills

Objectives

Student will identify and practice survival skills for disasters such as fire, earthquake or severe weather.

Skills

Grades 1 & 2

- Student will demonstrate steps for survival in home fire and earthquake.

Grades 3 & 4

- Student will create home fire escape and earthquake survival plans.

Grade 5

- Student will develop and practice emergency plans.

Introduction

Disasters can strike quickly and without warning. In Oregon, the disasters most likely to occur are home and wildland fires, earthquakes, flooding and severe weather. Such disasters can be even more traumatic when adults and children don't know what to do.

Consequently, it is important to know and to practice survival skills. Knowing what to expect geographically and practicing emergency plans in homes, workplaces, and communities can make a difference in emergency situations.

Key words and concepts

9-1-1 - the phone number to dial in Oregon for help

Disaster - event such as fire or flood that happens suddenly and causes suffering and loss

Disaster kit - assembled supplies to help people cope in case of sheltering at home or evacuation caused by a disaster.

Disaster plan - a written plan of how to respond to a disaster.

Dispatcher - person who receives 9-1-1 calls about fires and other emergencies, then routes calls to local fire or police station.

Drop, Cover, Hold on - sequence of steps to protect self from earthquake injury.

Earthquake - sudden, rapid shaking of earth caused by shifting of earth's crust.

Evacuate - to leave a place in an organized way for protection from unsafe conditions.

Preparedness - being ready for disaster by planning and practicing survival skills.

Reactive skills - learned reactions and immediate response for safety and survival.

Severe weather - destructive, localized storms.

Stop, Drop, Roll - sequence of steps to extinguish fire on clothing

Tsunami - one or more huge ocean waves caused by earthquakes.



DISASTER PREPAREDNESS PLAN

INTRODUCTION

A disaster can force people to evacuate their homes or confine them to it. Knowing what to do is the best protection if disaster happens. This lesson will guide students through the "index card communities" activity to demonstrate graphically the impact that various disasters can have on home and community.

More detailed suggestions for the lesson are included in the *Supplementary Materials* section of this unit.

NOTES:

LESSON PLANS

Goal: Student will develop and practice emergency plan.

Materials provided:

- Family Disaster Supply Kit work sheet (Home Connection)
- Family Disaster Plan (Home Connection)
- GS rubric (in introductory section)

Teacher preparation:

- Review Teacher Notes, p. 34
- Index cards
- Articles about disasters around the world
- Copies of Family Disaster Supply Kit worksheet
- Copies of Family Disaster Plan worksheet

Extended activity

Individual

- Discuss disaster preparedness plan with family.

Class

- Link to health education by reminding students of the importance of healthy eating even when in a survival situation. Students can create "survival menus" that include best sources of hydration and nutrition.
- Class collage of disaster kit, using photos from magazines

Grade 5

demonstration, discussion, disaster plan and kit

Index card communities

Locate a large space for class to work in small groups on the floor, building "communities" with index cards. Lead students in the index card communities activity (See *Teacher Notes*).

Disaster plan

Discussion of evacuation, preparedness, disaster plan and disaster kit (see *Key words and concepts*).

Instruct students to create lists of needed items (necessary for basic safety, nourishment, communication and comfort). Then generate class list from student lists. Compare with the Family Disaster Supplies Kit from the American Red Cross.

Assessment

(GS) goal setting

Family Disaster Supply Kit and Family Disaster Plan worksheets with parent signature. Discuss similarities (basic needs) and differences (family dynamics) of completed worksheets with class.

Discussion questions may include:

- How many people in your family?
- How much food and water would your family need to include in the disaster supplies kit?
- What size container for your kit?
- Where will the container be stored?
- Did you plan for anyone with special needs?
- Did you plan for your pets?

Review and practice survival skills (i.e. earthquake and evacuation).

Supplementary materials

TEACHER NOTES

INDEX CARD COMMUNITIES

Give each work group a stack of fifty index cards. The students can fold the cards lengthwise or width-wise only. Cards may also be used flat. They are to cooperatively build "communities" in close proximity to other "communities."

Decide if you want the students to do the activity with or without talking.

Provide feedback aloud as students work together. Within five to ten minutes, explain that today's lesson is about disasters. Define disaster. Demonstrate severe weather such as high winds by blowing down some index cards.

Discuss that disasters occur suddenly and without warning. Encourage students to rebuild "communities." Share articles such as those found in *Time for Kids* of disasters that have occurred around the world.

DISASTER PREPAREDNESS PLAN

Discuss how a disaster can force you to evacuate or confine you to your home. Knowing what to do is the best protection if disaster happens. Define preparedness, disaster plan and disaster kit.

Discuss emergency situations they may have experienced when they had no water and/or electricity. Describe a similar scene with roads and stores closed, thus, being confined to their homes for a few days.

Red Cross Family Disaster Supplies Kit

Water

- Store water in plastic containers such as soft drink bottles. Avoid using containers that will decompose or break, such as milk cartons or glass bottles. A normally active person needs to drink at least two quarts of water each day. Hot environments and intense physical activity can double that amount. Children, nursing mothers, and people who are ill will need more.
- Store one gallon of water per person per day.
- Keep at least a three-day supply of water per person (two quarts for drinking, two quarts for each person in your household for food preparation/sanitation).

Food

- Store at least a three-day supply of nonperishable food. Select foods that require no refrigeration, preparation or cooking, and little or no water. If you must heat food, pack a can of sterno. Select food items that are compact and lightweight. Include a selection of the following foods in your Disaster Supplies Kit:
 - Ready-to-eat canned meats, fruits, vegetables
 - Canned juices
 - Staples (salt, sugar, pepper, spices, etc.)
 - High energy foods
 - Vitamins
 - Food for infants
 - Comfort/stress foods

First Aid Kit

Assemble a first aid kit for your home and one for each car.

- (20) adhesive bandages, various sizes.
- (1) 5" x 9" sterile dressing.
- (1) conforming roller gauze bandage.
- (2) triangular bandages.
- (2) 3 x 3 sterile gauze pads.
- (2) 4 x 4 sterile gauze pads.
- (1) roll 3" cohesive bandage.
- (2) germicidal hand wipes or waterless alcohol-based hand sanitizer.
- (6) antiseptic wipes.
- (2) pair large medical grade non-latex gloves.
- Adhesive tape, 2" width.
- Antibacterial ointment.
- Cold pack.
- Scissors (small, personal).
- Tweezers.
- CPR breathing barrier, such as a face shield.

Non-Prescription Drugs

- Aspirin or non-aspirin pain reliever
- Anti-diarrhea medication
- Antacid (for stomach upset)
- Syrup of Ipecac (use to induce vomiting if advised by the Poison Control Center)
- Laxative
- Activated charcoal (use if advised by the Poison Control Center)

Tools and Supplies

- Mess kits, or paper cups, plates, plastic utensils
- Emergency preparedness manual
- Battery-operated radio and extra batteries
- Flashlight and extra batteries
- Cash or traveler's checks, change
- Nonelectric can opener, utility knife
- Fire extinguisher: small canister ABC type
- Tube tent
- Pliers
- Tape
- Compass
- Matches in a waterproof container
- Aluminum foil
- Plastic storage containers
- Signal flare
- Paper, pencil
- Needles, thread
- Medicine dropper
- Shut-off wrench, to turn off household gas & water
- Whistle
- Plastic sheeting
- Map of the area (for locating shelters)

Sanitation

- Toilet paper, towelettes
- Soap, liquid detergent
- Feminine supplies
- Personal hygiene items
- Plastic garbage bags, ties (for personal sanitation uses)
- Plastic bucket with tight lid
- Disinfectant
- Household chlorine bleach

Clothing and Bedding

Include at least one complete change of clothing and footwear per person.

- Sturdy shoes or work boots
- Rain gear
- Blankets or sleeping bags
- Hat and gloves
- Thermal underwear
- Sunglasses

Special Items

- Remember family members with special requirements, such as infants and elderly or disabled persons.

For Baby

- Formula
- Diapers
- Bottles
- Powdered milk
- Medications

For Adults

- Heart and high blood pressure medication
- Insulin
- Prescription drugs
- Denture needs
- Contact lenses and supplies
- Extra eye glasses

Entertainment

- Games and books

Important Family Documents

- Keep these records in a waterproof, portable container:
 - Will, insurance policies, contracts, deeds, stocks and bonds
 - Passports, social security cards, immunization records
 - Bank account numbers
 - Credit card account numbers and companies
 - Inventory of valuable household goods, important telephone numbers
 - Family records (birth, marriage, death certificates)
 - Store your kit in a convenient place known to all family members. Keep a smaller version of the supplies kit in the trunk of your car.
 - Keep items in airtight plastic bags. Change your stored water supply every six months so it stays fresh. Replace your stored food every six months. Rethink your kit and family needs at least once a year. Replace batteries, update clothes, etc.
 - Ask your physician or pharmacist about storing prescription medications.
-

This list is from *Preparing for Disaster*. Developed by the American Red Cross and the Department of Homeland Security, Federal Emergency Management Agency.

Note: To get copies of American Red Cross Community Disaster Education materials, contact your local Red Cross chapter.



Name _____

A **Family Disaster Supply Kit** helps you to be prepared for an emergency. Complete this list with your family. Include what you need to stay safe and comfortable **for three days**.

Water (one gallon per person per day) _____

Food

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

First Aid

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Tools

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Other supplies

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____



Name _____

A **FAMILY DISASTER PLAN** provides your family with emergency procedures and emergency contact information. Complete this list with your family.

FAMILY MEETING PLACE

outside your home

outside your neighborhood

EMERGENCY CONTACTS

family work number(s)

family cell phone number(s)

relative's or friend's phone number

(name)

out-of-town relative or friend's phone number

(name)

LOCAL EMERGENCY NUMBER

DOCTOR'S PHONE NUMBER

(name)

A RESOURCES

Pendziwol, Jean. *No Dragons for Tea: Fire Safety for Kids (and Dragons)*. Kids Can Press, 2001. (If available, this story can be read instead of the positive news story provided.)

American Red Cross. *Masters of Disaster: Fire Safety and Prevention*.
<http://www.redcross.org/disaster/masters/firesafety/index.html>

B C RESOURCES

Ball, Jacqueline. *Wildfire! The 1871 Peshtigo Firestorm*. Bearport, 2005.

Brunelle, Lynn. *Earthquake! The 1906 San Francisco Nightmare*. Bearport, 2005.

Ingram, Scott. *Tsunami! The 1946 Hilo Wave of Terror*. Bearport, 2005.

Masoff, Joy. *Emergency*. New York: Scholastic, 1999.

Watts, Claire. *Rescue*. DK Publishing.

American Red Cross. *Masters of Disaster: In the Aftermath (Disaster Recovery)*.
<http://www.redcross.org/disaster/masters/aftermath/>

American Red Cross. *Masters of Disaster: Facing Fear*
<http://www.redcross.org/disasters/masters/facingfear/>

National Safe Kids Campaign
<http://www.safekids.org>

UNIT 5

FIRE SMART DECISIONS

Scope and Sequence

A

DECISION MAKING SKILLS

Activity 1/Grade 1

STOP-THINK-GO signs and stories

Activity 2/Grade 2

STOP-THINK-GO stories

B

FIRE-SAFE SCENARIOS

Activity 1/Grade 3

STOP-THINK-GO scenarios

Activity 2/Grade 4

STOP-THINK-GO performance task

C

FIRE-SMART ABOUT PEER PRESSURE

Grade 5

Interpersonal communication role-play

If your school has several teachers using this curriculum, lesson plans, supporting teacher notes & student work sheets are available for download by grade level at the Office of State Fire Marshal Web site: www.oregon.gov/OSP/SFM/Curriculum_for_Grades_1-8.shtml

Fire Smart Decisions

Objectives

Student will recognize and practice responsible behavior regarding fire.

Skills

Grades 1, 2, 3 & 4

- Student will practice decision making strategy to make fire-safe choices.

Grade 5

- Student will use communication skills to help self and others in unsafe situations relating to fire.

Introduction

Too many children and adolescents die in fires every year. Carelessness or equipment failure are the causes of some of these fires. Children and adolescents also cause fires. Many are curious and engaging in high-risk behavior whether experimenting with matches, lighters or fireworks. Others are setting fires as a way to deal with emotional issues. They may be crying out for help or responding to peer pressure.

Youth-set fires are preventable. Prevention and intervention programs include important educational components such as functional knowledge and skills.

Using various fire scenarios, students will practice a decision-making strategy for personal safety.

Key words and concepts

Assertiveness - clearly communicating thoughts and feelings without negatively impacting another

Communication skills - ability to use words and actions to convey information

Consequence - positive or negative result from a personal action

Decision-making skills - process to follow to evaluate choices and take action

Misusing fire - using fire in a way that it was not intended

Negative peer pressure - feeling compelled by someone to act in a certain way that may be dangerous

Negotiation skills - ability to use words and actions to settle an issue

Peer - a person your own age

Positive peer pressure- feeling compelled by someone to act in a positive or safe way

Refusal skills - ability to use words and actions to refuse to act in a negative or unsafe way

STOP-THINK-GO - a decision-making model



FIRE-SMART ABOUT PEER PRESSURE

INTRODUCTION

Peer pressure begins to be a factor in leisure activities selected by students at this age, and misusing fire is alarmingly often an activity of choice. Fire misuse has the potential for disastrous consequences for both the youth(s) and the community.

More detailed information is included in the *Supplementary Materials* section of this unit.

NOTES:

LESSON PLANS

Goal: Student will demonstrate responsible fire-safe decision-making skills.

Materials provided:

- Communication skills scenarios
- Do the Write Thing (master)
- Performance task (master)
- Comic strip template (master)
- IC rubric (in introductory section)

Teacher preparation:

- Review Teacher Notes, p. 25
- Make performance task transparency
- Copy comic strip template and Do the Write Thing master

Extended activities

Individual

- Students keep journals of incidents where they used the communication skill of refusal.

Class

- Divide class into groups to create skits using a peer pressure and fire scenario. Students will decide on roles, including reporter who writes the script. Help groups manage time for script-writing and practicing. Present skits. If possible, video.

Grade 5

interpersonal communication role-play

Discuss new words and concepts

- 1) Consequence - positive or negative result from a personal action
- 2) Peer pressure (negative) - feeling compelled by someone to act in a certain way that may be dangerous
- 3) Peer pressure (positive) - feeling compelled by someone to act in a positive or safe way
- 4) Refusal skills - ability to use words and actions to refuse to act in a negative or unsafe way

Divide class into work groups.

Provide a scenario description to each group and explain the role-play process. Scenarios:

- 1) candles and peer pressure
- 2) lighter and peer pressure

Have groups plan how they will role-play their scenario demonstrating refusal skills for the class. They may choose to role-play both a good and poor response to peer pressure (identify as such). Groups present scenario(s) to class.

(Alternative lesson approach: Copy scenario masters so each student has one scenario. Have students complete work sheets independently.)

Assessment

(IC) interpersonal communication

Performance task as short story in Do the Write Thing format or comic strip format using fire awareness vocabulary and refusal skills.

Supplementary materials



TEACHER NOTES - REFUSAL SKILLS (KEY)

INTRODUCTION

The Office of State Fire Marshal collects data about juveniles involved with fire in Oregon.* Data show that in 2006 Oregon fire departments reported 915 juveniles involved with fire. 746 incidents were reported — of that number, 553 resulted in fires that required a fire engine response. Most of the incidents occurred in or near residences and schools. Often, several juveniles were reported involved in one incident. Peer pressure is obviously a factor; it becomes increasingly so as youths approach middle school age.

The numbers are sobering and only education and holding youths accountable can lower them. Youths should be educated about the reality of fire, decision-making skills and the consequences of poor choices. The difference between a youth who is fire-safe and one who is not, is accurate knowledge of fire and fire safety skills coupled with responsible decision-making.

This lesson covers peer pressure and refusal skills needed to effectively resist negative peer pressure. Students will identify negative peer pressure as the problem (STOP). As the groups share the possible options and outcomes (THINK) and their decisions (GO), you may wish to list them on the board and follow with a discussion.

LIGHTER SCENARIO - PEER PRESSURE

A good choice in this scenario will involve using refusal skills to resist negative peer pressure. The students may say ...

1) ... they will resist the negative peer pressure and refuse to participate.

(This is a good choice.)

2) ... they will join in the firesetting. (This is a poor choice. Have students imagined what the negative outcomes from this activity might be? Could the fire endanger life and property? Could they be in legal trouble?)

continued on page 26

3) ... they will refuse to participate and tell an adult when they return home. (This is a good choice—and a difficult one. Could an outcome of this action be losing their new friends? Another decision might be to decide if they want to remain friends with these kids.)

4) ... they will refuse to participate and try to stop the kids from starting the fire. (This is a good choice and probably the most difficult of all. It will take considerable maturity, courage and persuasive skills.)

CANDLE SCENARIO - PEER PRESSURE

A good choice in this scenario will involve using refusal skills to resist negative peer pressure. The students may say ...

1) ... they will resist the negative peer pressure and refuse to participate. (This is a good choice.)

2) ... they will join in lighting the candles. (This is a poor choice. Have students imagined what the negative outcomes from this activity might be? Could the lighted candle result in a house fire that endangers life and property? Will they be in trouble with their parents?)

3) ... they will refuse to participate and tell the friend to either abide by the rules of the house or go home. (If the parents are not home, this is a good choice — and a difficult one. Could an outcome of this action be losing their friend? This may also involve deciding if they want to remain friends.)

4) ... they will refuse and ask the parents to intervene if they are at home. (If the parents are at home, this is a good choice — and a difficult one. Could an outcome of this action be losing their friend?)

5) ... they will decide to light the candles and hide the activity from their parents. (This is a poor choice. The parents may find out and they would be in trouble. If the parents don't find out, will they be able to live with their conscience?)

* If you are interested in specifics about youths and fire in your city or county, contact the Office of State Fire Marshal, Data Services Unit or Community Education Unit (elementary curriculum specialist).



REFUSAL SKILLS: LIGHTER SCENARIO

Situation:

You just moved into a new neighborhood. After settling in and making friends with the kids next door, your mom lets you walk home from school with them. Today, they're walking a different way home. One shows you a lighter hidden in his pocket, then takes paper from his backpack to set on fire. What can you do?

STOP (identify the problem)

THINK (possible options and outcomes)

GO (your decision)

WRITE a role play for this situation on back.



REFUSAL SKILLS: CANDLE SCENARIO

Situation:

It is after school and you and your friend are doing homework in your room. Your friend thinks it would be cool to light candles while you are studying. You say your parents don't allow you to light candles in your room. Your friend keeps insisting. If your parents are home, what can you do? If your parents are not home, what can you do?

STOP (identify the problem)

THINK (possible options and outcomes)

GO (your decision)

WRITE a role play for this situation on back.



You are a subscriber to the national magazine *STUDENT VOICE*. The magazine is dedicating its October issue to fire prevention and survival stories. The editor is asking readers to submit original stories in comic strip format (or as a short story on *Do the Write Thing* template) about kids who pressure others to misuse fire and how fire-safe, fire-smart kids respond using refusal skills. Selected stories will appear in the *What Can You Do?* section of the magazine.

Select a realistic scenario that could be true for kids your age.

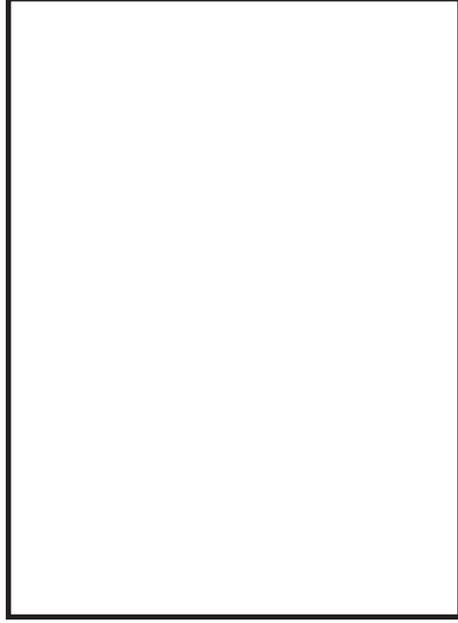
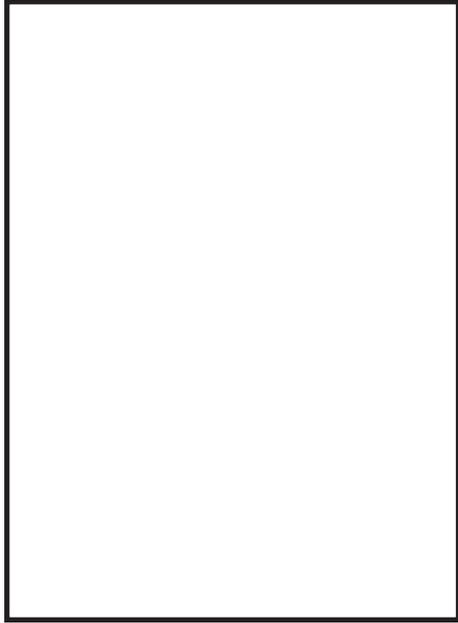
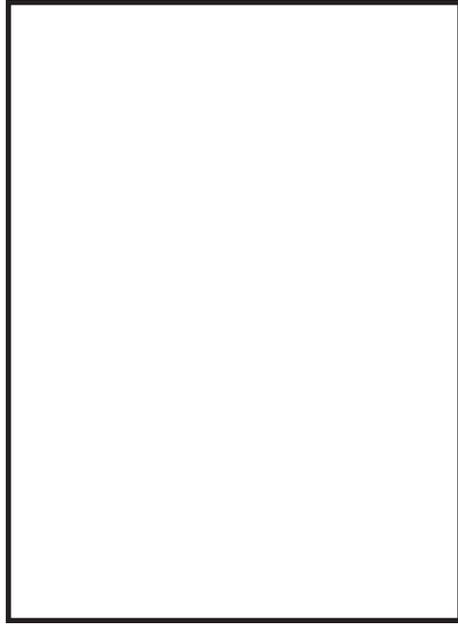
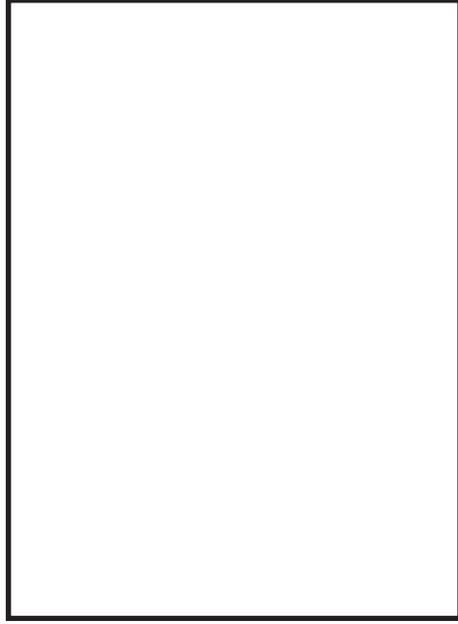
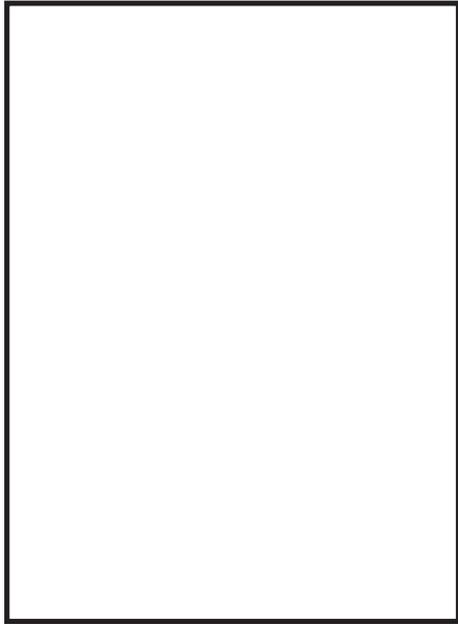
As a dedicated subscriber to *STUDENT VOICE*:

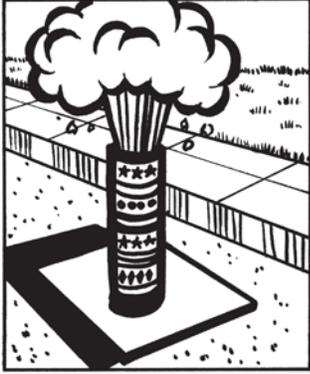
- **Write your story on comic strip template or Do the Write Thing template.**
- **Include appropriate communication skills using words and illustrations (for comic strip).**
- **Show communication skills that work in peer pressure situations in closing frame of story board.**

You will be scored on the following:

- How clearly you communicate using refusal skills in a peer pressure situation.
- How interpersonal communication skills enhance the health of self and others in your story.

COMIC STRIP TEMPLATE





FIREWORKS SAFETY PLEDGE

WE PLEDGE TO:

First of all

I will

Remember to be safe around fireworks

Every time, everywhere.

Wherever I am

Only legal fireworks with

Responsible adults will be

Kept in mind

So that I can enjoy fireworks for a long time.

Note: This pledge is for kids and families to sign.



CAMPFIRE SAFETY PLEDGE

WE PLEDGE TO:

Cook with adult supervision.

Always stay 3 feet from campfire.

Make sure adult starts campfire.

Prevent clothing from catching fire.

Fill water container and keep nearby.

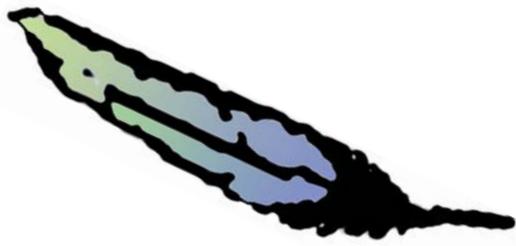
Identify safe location for campfire.

Remember to play away from campfire.

Extinguish fire when away from it.

Set up and follow family safety rules.

Note: This pledge is for kids and families to sign.



As this curriculum was being written, a wealth of information about Native Americans and fire surfaced.

Archeological evidence exists that Native Americans used fire to alter their environment long before written history recorded these activities.

Myths about the theft of fire are part of the oral tradition of many tribes, pointing to the importance of fire to the tribes' comfort and survival.

Many school districts cover Native Americans as a regular part of their curriculum. Native Americans' use of fire is an important and interesting part of the whole story and the information that was collected during the writing of the curriculum has been placed in this bonus section for convenience.



THEFT OF FIRE

This Yurok Indian myth beautifully illustrates the important role that fire has in the lives of human beings. The myth was found in *Yurok Myths* by A. L. Kroeber, published in 1976 by the University of California Press. It is used by permission of the Estate of A. L. Kroeber. We are grateful for the permission.

Sky-Owner and others talked long. They planned how fire was to be obtained for human beings. Fire-Owner kept it. He lived across the ocean. Then they spoke long how they could get it. Sky-Owner said, "I cannot do it. Perhaps you can." One of them said, "Let us take it away by gambling." So Sky-Owner said, "Yes, take it away from him that way if you can. I cannot."

At last Bald Eagle said, "I will get it. Who will go with me? Who is the swiftest runner?" Coyote said, "I am the best. I will run with it." Now they went. On every ridge they left one person. Bald Eagle said, "They will follow us. It is only in this way that we can escape. When one of us is tired, the next one will take the fire." Beyond Coyote he put Deer; beyond him, Fisher; and then Duck.

Bald Eagle said, "I will go and gamble. When it is nearly morning, I will sing this song." Then he sang. "After I have sung. I will hiccup ten times. Then I will stir the fire hard so the sparks fly. You must listen for that song."

Then he did as he had said. He gambled and sang and hiccuped and stirred the fire, and the sparks flew up. Coyote caught them and ran. All those there shouted and pursued. They did not overtake Coyote. When he was tired, Deer took the fire and ran in big jumps. Then Fisher ran with it, and then Duck. So they escaped with the fire.

But when they arrived, Duck had no more fire in his hands: it had gone out. Then he took sticks of willow and rubbed one in his hands (on the other) for a long time. He made a little smoke. He kept twirling. At last he got fire.

Now they were all glad. They made fire in the sweat house and fire in the house. Now they all could swim. They learned to swim far and well and like it. When they became cold in the water, they went to the fire. Women also were glad. Every morning they bathed in the creek. If they were cold they warmed themselves at the fire. So they do now. If they had got no fire, no one could bathe or get mussels in the ocean.

ROLE OF FIRE TENDER

Here you will find a description of the Native American sweat house ceremony and the role of fire tender. The careful attitude toward the use of fire is instructive as we consider the use of fire in human society. Fire's useful role and the necessary caution around it should be thought of as two sides of a coin ... each incomplete without the other.

Many Native American tribes have the tradition of the sweat house, a ceremony used to purify the participants physically and spiritually.

Rocks are heated until glowing in a fire. When the rocks are hot enough, they are moved into a fire pit in the center of a sweat house. The sweat house is built of wooden ribs and a covering. With the rocks in place, the structure's openings are closed and water is poured on the hot rocks to produce steam. As the heat and steam accumulate in the sweat house the people participating sweat profusely as they sing and pray.

The person who is designated to guard and maintain the fire is known as the "fire tender." This is a great honor and a serious responsibility.

Fire tenders learn that fire is like a mischievous child ... that you must not turn your back on it, lest it escape, causing trouble.

As one fire tender takes the place of another, a ritual query and response takes place. The fire tender who is handing off the responsibility asks, "Are you watching?"

The fire tender taking his place replies, "Yes, I am watching."

HOW DID NATIVE AMERICANS USE FIRE?

Before Spanish explorers, missionaries and settlers came to North America, Native Americans — also known as indigenous people, and first nations/ first people — used fire to intentionally alter the natural environment to their benefit. Henry T. Lewis, who has written more on the subject of Native Americans' use of fire than anyone else, counted at least seventy reasons. Others writing on the subject have listed fewer.

Some of the major uses are listed below. The summary has been excerpted with permission from an essay by Gerald W. Williams, Ph.D., Historical Analyst, USDA Forest Service, July 15, 2003. The essay is available on the Web at <http://www.fs.fed.us/fire/fmt/Bibliography/Introduction.doc>. The document has a more comprehensive discussion of Native Americans' use of fire and an excellent bibliography of more resources.

- **Hunting.** Fire was used to drive large game such as deer, elk and bison into areas where hunting was easier. Sometimes fire was used to drive game over cliffs or into narrow canyons, rivers or lakes where they could be killed more easily. Torches were used to find deer and fish. Smoke was used to force raccoons and bears from their dens.
- **Growing Food.** Fire was used to clear areas for growing food; prevent shrubs and trees from growing back while fields were resting; increase the yield of berries such as strawberries, raspberries and huckleberries; and clear areas under oak trees to make gathering acorns easier.
- **Insect Collection.** Fire was used to collect and roast crickets and grasshoppers. Smoke was used to drive bees from nests, aiding in honey collection.
- **Pest Management.** Fire helped to keep the numbers of pests such as rodents, poisonous snakes, flies and mosquitoes down.
- **Range Management.** Fire encouraged the growth of new grasses for grazing animals and kept the area from growing back to shrubs and trees.
- **Fireproofing.** Native Americans knew how to fight fire with fire. Fires were deliberately set near settlements and other special areas. If a fire moved through the area it might go out when reaching the already burned area because there was no fuel.

- **Warfare and Signaling.** Fires were purposely set in fighting enemies: a cleared area was hard to hide in; fires were used to destroy enemy property; fires were set during an escape to camouflage movement; large fires were set to notify others of enemy movements and gather forces for fighting.
 - **Economic Extortion.** Some tribes burned large areas to prevent settlers and traders from finding game. They would then trade with them for dried meats.
 - **Clearing Areas for Travel.** Keeping trails open and free from brush was important for travel and safety.
 - **Tree Felling.** Trees were important for building structures and canoes. Before axes were available through trade, Native Americans used fire to kill trees. One method: drill two intersecting holes in a trunk, put charcoal in one hole and let the smoke escape out the other. The other method involved circling a tree with fire at the base, “girdling” it and eventually killing it.
 - **Clear Riparian Areas.** A riparian area is land near water. Clearing brush made hunting for beaver, muskrats, moose and waterfowl easier.
-

Native Americans as shown on the timeline ... Entries about Native Americans in the timeline cards for Lesson B are summarized below. These entries are integrated into the timeline as a whole, but you may wish to consider them separately in conjunction with a lesson on Native Americans.

TO SIGNAL

- Native Americans used smoke signals to alert tribes about possible enemies or to gather forces to combat enemies.

TO HUNT

- Native Americans used fire to drive animals they were hunting into places where they could be killed easily. They also used fire to create open grassy areas where animals would graze. This made hunting easier.

TO MANAGE THE ENVIRONMENT

- Native Americans used fire to clear brush near streams. New grasses and tree sprouts grew, creating food for moose, beavers, muskrats and waterfowl. Indians used the animals and birds for food and fur.
- Native Americans used fire to clear ground for growing food and to increase yield of berries.
- Native Americans used fire to clear an area to create a fireproof area around settlements and medicine plants.
- Native Americans used fire to clear areas for travel.
- Native Americans used fire to manage pests. Fire reduced the number of black flies, mosquitos, rodents and poisonous snakes.