

IRC Summer Jobs Program Helps Teachers, Fermilab

"Personally, I believe that I would never have had a chance to experience this type of professional growth without the program," said Donald Whelpley, a teacher at Downers Grove H.S., about the Illinois Research Corridor Summer Jobs Program. Initiated in 1983 by physicists at Fermilab, this innovative professional development program provides summer employment for a select group of high school teachers at Fermilab and other local high-tech companies.

According to Gail A. Digate, executive director of the Corridor Partnership for Excellence in Education, over 55 candidates from 38 junior and senior high schools throughout northern Illinois, Chicago, and southern Wisconsin applied to the program. She said that "Excellence in classroom teaching, professional involvement in science and mathematics, and superior academic credentials are the major factors used in the selection process." Thirty-two of the 55 applicants were offered positions, 19 at Fermilab.

Other companies participating in the 1988 program included Amoco Research Center, Argonne National Laboratory, AT&T Bell Laboratories, AT&T Network Software Center, Geo. J. Ball, Inc., the Morton Arboretum, and Nalco Chemical Company. "Involvement in this program shows a company's commitment to the importance of pre-college education in a very real way," said Digate. Funding for the program comes entirely from the involved companies.

"Now in its sixth year of operation, the Summer Jobs Program affords an important mechanism by which skills and ideas that are critical in industry and research can be made available to junior and senior high school students by way of employment experiences of their teachers," said Arlene Lennox of the Neutron Therapy Facility and on-site coordinator of the program. "It also gives dedicated and competent teachers the opportunity to work side by side with professionals in their field using state-of-the-art techniques and equipment."

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Helen Edwards Inducted into NAE

Helen Edwards, Head of the Fermilab Accelerator Division, and recent MacArthur Foundation grant awardee, was inducted into the National Academy of Engineering (NAE) in Washington, D.C., on September 28, 1988.

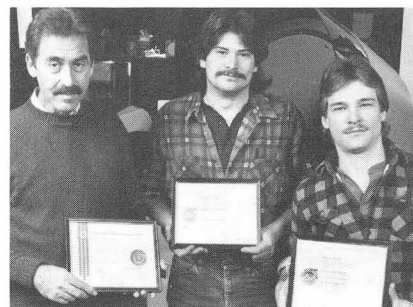
In announcing Edwards' selection, Robert M. White, President of the NAE, stated that "Dr. Edwards will join the 1408 members of the Academy whose achievements represent the engineering profession's highest standards.

"Election to the Academy is a singular honor conferred upon distinguished engineers by their peers. This recognition not only honors her, but also reflects favorably on organizations that have made so many of her significant accomplishments possible." ✻

Three in Tech. Suppt. Make the Grade

Quality is the byword in Fermilab's Technical Support Section (TSS), where precise tolerances and top-grade materials can mean the difference between magnets that work and magnets that don't.

TSS encourages its members to continually upgrade their knowledge and skills through professional-level courses. The latest to take advantage of these opportunities are Dan Assell, Paul Forester, and Don Tinsley.



Left to right; Don Tinsley, Paul Forester, and Dan Assell with their certificates of achievement.

Don has been certified as a Quality Engineer, Paul as a Mechanical Inspector and Dan as a Quality Tech-

Continued on page 2

Major Money Awards for Energy-Saving Ideas

October, Energy Awareness Month, is a propitious time to announce the new and improved Fermilab Employee Energy Conservation Awards program, which gives full-time Fermilab staff the chance to capitalize on a good idea.

The program offers cash awards ranging from a \$100 minimum to a \$5000 maximum, based on the benefit value and extent of application of an energy-conservation suggestion. To be eligible for a cash award, suggestions must reflect at least an estimated \$250 annual net energy cost savings to the Laboratory. A cash award of 10% of the first year's net cost savings will be made for suggestions producing an estimated annual net savings of up to \$10,000. From that level, awards will range upward to a maximum of \$5000 for suggestions producing an annual estimated net savings exceeding \$300,000. A key element of the program is that the suggester does not have to wait for implementation of the suggestion.

All suggestions will be evaluated by Fermilab staff members with expertise in the technical area of each suggestion. Their recommendations will be reviewed by Energy Conservation Awards Committee members Don Beatty, Kurt Kasules, Dick Lundy (chairman), Wayne Nestander, Bill Riches, Jan Ryk, and Age Visser. Cash awards will then be approved by the Director and presented at an awards luncheon.

Ideas related to energy conservation in a specific operation, process, method, or practice at Fermilab are encouraged. Suggestions may pertain to any area of the Lab, but the suggestion must fall outside the scope of the suggester's specific job, and must be consistent with the mission and purpose of Fermilab.

Complete information, guidelines, and suggestion forms are available from Bill Riches, Energy Management Coordinator, WH7E, MS 119, ext. 3779, or Jenny Rapovich in the Safety Office, WH7E, MS 119, ext. 3644. - **Bill Riches**

October is the Department of Energy's "Energy Awareness Month," and the week of October 9-15 is national Fire Prevention Week. In observance of these two events, this issue of *FermiNews* is accompanied by (1) an "Energy Awareness Month" proclamation from the Director and (2) "Facts About Fire," from the National Fire Protection Association and brought to you by the Fermilab Fire Department.

Benefits Notes

Connecticut General Medical Plan

I.D. cards were mailed to employees who enrolled in the Connecticut General medical plan during the recent open enrollment period. The I.D. cards were mailed to employees' homes. If you did not receive an I.D. card, please call the Benefits Office at exts. 3395 or 4361.

The I.D. card includes the procedure to follow for in-patient hospital stays, both emergency and non-emergency. If you do not follow the pre-certification procedures, you will have to pay 50% of the hospital bill. A description of the pre-certification procedure is on page 19 of the *Fermilab Pension and Group Insurance Programs* handbook.

Also keep in mind that there are certain surgeries that require a second opinion. The list of surgeries can be found on page 20 of the handbook cited above. A description of the penalty for not getting a second opinion is also on page 20.

Please call the benefits Office if you need a copy of handbook. As soon as the new supply of Connecticut General certificates are printed, a copy will be mailed to you. - **Paula Cashin**

"Tech." continued from page 1

nician by the American Society for Quality Control (ASQC), a non-profit educational and scientific society composed of quality-control professionals.

Greg Kobliska, Material Control Group Leader, said of their achievement, "It's always gratifying to see employees grow personally and professionally. The studies undertaken to pass certification exams directly benefit the employee and the Laboratory.

"We have plans for continuing education in the future that will enable us to meet the new challenges we face."

Average annual income of an American child: **\$157.56** Percentage of children who say that Pee-wee Herman is "highly qualified" to be President: **8**

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Interactions & Events

et al.

Brandi Sculthorpe, daughter of **Ann and Harvey (Bus.Serv./T&M) Falk**, is the 1988-1989

Miss Deaf America, after reigning as Miss Deaf Illinois. Ms. Sculthorpe competed against 33 other contestants in demonstrating her abilities and value to society. Part of the competition included an on-stage interview in front of 2000 people. In the talent competition, Ms. Sculthorpe performed an original dramatic reading entitled, "A Message to America."



Brandi Sculthorpe

During her two-year reign, Ms. Sculthorpe plans to campaign to have sign language established as an alternative to foreign-language study in the nation's high schools. She attends the National Technical In-

stitute for the Deaf in Rochester, N.Y., and plans to transfer to Gallaudet University in Washington, D.C., to begin work on a master's degree in psychology and a doctoral degree in education for the deaf.

• • • • •
Daemon Smith, the son of **Marilyn (Directorate) and Necota (Bus. Serv./Comm.) Smith**, knows a window of opportunity when he sees one. The 12-year-old writer entered a "Just Say No" story-writing contest sponsored by the Youth Activities Division of Aurora's Human Services Department, and walked away as one of three winners out of 200 entries. Without slowing long enough to acquire an agent, Daemon became a videowriter when his story, "Just Don't," along with those of his two co-winners, was optioned for the small screen as an anti-drug video to be distributed throughout Aurora School District 131.

At a press conference held at Aurora's City Hall, Daemon told the *Aurora Beacon-News* that he likes to write, "but I think I could be a lot better." Daemon's story (*not* drawn from personal experience), tells of a family torn asunder by the drug abuse of Brent, one of four sons. "Whatever Brent had taken had destroyed him. He had gigantic bags under his eyes and his nose was all red and swollen. The sight of Brent's decayed face scared Jon, really scared him. Jon, with a 10-pound butterfly in his stomach, managed to get out a simple, 'Hi'." Brent, of course, dies.

Daemon's brother, **Aaron**, will appear in one of the other two winning videoplays. ❀

Another Event for the 15-ft Bubble Chamber

You can't keep a good bubble chamber down. Even though the Fermilab 15-ft. Bubble Chamber has been formally retired, it still manages to earn recognition.

T-shirts were designed and printed by the Sport Station as part of the festivities marking the bubble chamber's retirement. That Chicago company won second prize in a competition sponsored by *Impression* magazine for their work on the shirts, which showed an actual event - an interaction of a neutrino with the nucleus of an atom in the 15-foot bubble chamber. - submitted by **Bob Pucci (RD/Cryo)**

Congratulations to:



The Film Society Presents:

The 1988 "Science fiction Festival," featuring:

On Friday, October 21, at 8:00 p.m., *The Right Stuff*, the story of America's astronauts; on Saturday, October 22, 2001, *A Space Odyssey*, at 8:00 p.m., and 2010 at 10:00 p.m. The films will be shown in the Ramsey Auditorium. Admission is \$2 (\$.50 for children) at the door.

"IRC" continued from page 1

Participants at Fermilab this summer included:

Bruce Basak, (Glenbard West H.S.) assisted **Finley Markley** (Technical Support) with work on warm superconductors and electrical properties of curing epoxy resins. . . **William Burt** (Glenbard East H.S.) worked with **Ruth Pordes** (Data Acquisition Group) on computer programming. . . **Frank Burzynski** (West Chicago H.S.) and **Bruce Brown** (Magnet Test and Development) analyzed magnet-measurement data. . . **Dane Camp**, (Downers Grove South H.S.) and **David Eartly** (AD/Exp. Supprt.) continued developing a cable data base for the D0 detector. . . **Raymond Dagenais** (Waubonsie Valley H.S.) worked with **Sam Baker** and **Bill Freeman** (Safety) on radiation-related projects. . . **George Eblin** (Downers Grove North H.S.) and **Jim Hanlon** (Physics) implemented a CAMAC-based control system for film-measuring machines. . . **Hans Gouger** (Parker H.S., Janesville, Wisc.) worked with **Forrest Davenport** (Physics) to develop software to support the E-687 trigger electronics. . . **Joel Klammer** (Valley Lutheran H.S., St. Charles) helped **Ray Hanft** (Magnet Test and Development) develop a computer interface to a Superconducting Cable Measuring Machine. . . **Paul Madsen** (Hinsdale South H.S.) worked with **Win Baker** (Research Facilities) on data analysis for E-706 and shiftwork on E-610. . . **Charles Osborne** (West Chicago Junior H.S.) assisted **Karen Kephart** (Physics) in the construction of the D0 detector. . . **Saulius Ploplys** (Buffalo Grove H.S.) worked with **David Harding** (Pbar Source) on analysis of data from the Pbar Beam Position Monitor System. . . **Yvonne Richter** (Benet Academy, Lisle) and **Judith Nicholls** (Computing) did program conversion and improvement for the Users Support Group. . . **Michael Salisbury** (Plainfield H.S.) worked with **Mary Jane Nichols** to install and develop a software package for inventory control in the Information Systems Department. . . **Kent Luetke-Stahlman** (Sycamore H.S.) helped **Jeff Petter** (Pbar Electronics) to develop PASCAL programs for an IBM PC/AT interfaced to a Hewlett-Packard network analyzer. . . **Rosemary Sterr** (Benet Academy) performed data analysis of stochastic noise from the axion-search experiment rf cavity with **Frank Nezrick** (Experimental Support) . . . **Thomas Todd** (Wheaton Central H.S.) assisted **Curt Owen** (Loma Linda Project) on quality-control measurements for magnets in the proton medical accelerator. . . **Donald Whelpley** (Downers Grove

South H.S.) and **Larry Ketcham** (Experimental Areas Support) did computer programming for the Alignment Group. . . **Michael Wilson** (Naperville North H.S.) worked with **Cary Dowat** (Data Communications) to develop a system for monitoring the use of the networks at Fermilab. . . **Randall Zamin** (Downers Grove South H.S.) developed training materials and study guides for Accelerator Operators with **Bob Mau** (Accelerator). ❀

FermiNews Cla\$\$ified Ad\$ FOR SALE

Motorized Vehicles:

1980 DODGE ASPEN WAGON, 57,000 mi., 6 cyl., auto., air, very good condition. \$1495 or offer. Call Rich Rebstock, ext. 3630.

1984 NISSAN 200-SX, hatchback, 5-spd, air, p/w, p/s, p/b, AM/FM stereo, verbal abuse, new tires, garaged, top cond. \$4600. Call Rick, ext. 3278.

Miscellaneous:

1876 ANTIQUE SQUARE GRAND PIANO, rosewood case w/carved mahogany legs, new keyboard. Asking \$2500. ANTIQUE WICKER ROCKER, \$100. 1988 BAYLINE 17-ft CAPRI CUDDY POWER BOAT, incl. Escort trailer, 85-hp Force outboard, less than 40 hrs. \$9900 new, sacrifice for \$8995. 10-SPD BICYCLE FRAMES, 2, for parts. \$10 each. RALEIGH 3-SPD BICYCLE, a collector's item, 30 to 40 years old. Asking \$45. COMMODORE VIC 20 with new Vic 1525 graphic printer, 40K adapter, tape drive, lots of games. \$125 for all. HALLICRAFTER SHORT-WAVE RECEIVER, tube type, ca. 1962. \$20. Call Jim at ext. 2790 or 584-1930 after 6:00 p.m.

TEKTRONIX 545A OSCILLOSCOPE w/dual trace (53/54C) plug-in. \$300. Call Carl at ext. 4602 or 377-1799 evenings.

WHIRLPOOL NO-FROST REFRIGERATOR/FREEZER, 12 cu. ft., white, 2 yrs old, asking \$425. TAPPAN 30-in. GAS RANGE, white, 2 yrs old, asking \$275. Call John at ext. 4964 or 627-5573 after 6:00 p.m.

CANNONDALE BICYCLE, 53 cm, 12 spd., \$300. Will consider selling frame only. Call Rich Rebstock, ext. 3630.

VINYL-COATED FENCING, 225 ft, incl. galv. top rails, posts, (2) 36-in.-wide welded frame gates and all hardware. Call Robert Kmak, ext. 3525 or 532-5323 after 6:00 p.m.

WANTED:

HOUSEMATE to share 3-bedroom house near Fermilab. Present tenants are FNAL postdocs. Rent: \$270 plus utilities. Ready Sept. 29. Male or female okay. Non-smokers required. Call Mitch at ext. 6476 or Gian at ext. 3664.

A Proclamation

'ENERGY MAKES AMERICA WORK'

WHEREAS, Fermilab has been a leader in the development of innovative methods of energy conservation, particularly in the use of superconductivity to reduce the use of electrical energy; and

WHEREAS, the wise use of energy and energy-producing resources are the foundations of future economic prosperity for our society and because of recently enhanced concerns about the global impact of energy waste; and

WHEREAS, the proper use of coal, water, natural gas, petroleum products, and alternative energy sources comprises a highly complex set of issues that are of paramount importance to every citizen; and

WHEREAS, consensus regarding proper use is not easily reached; however, all involved agree that using less energy, or practicing energy conservation, is most desirable and beneficial; and

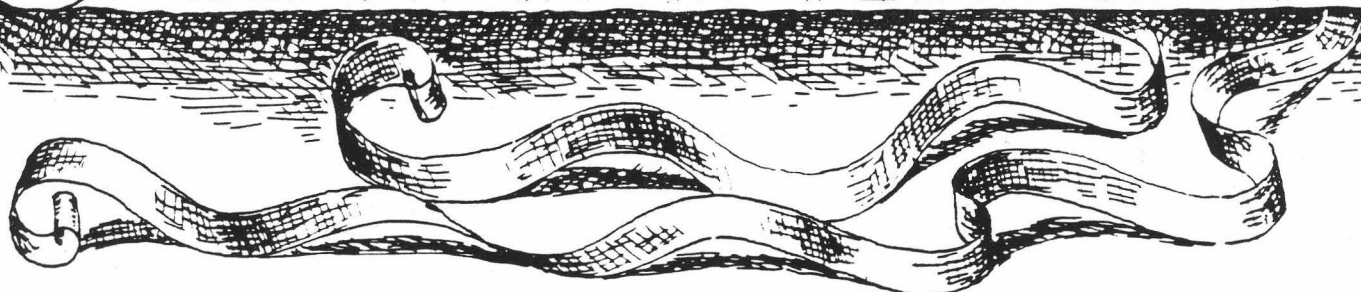
WHEREAS, institutions, government, business, and private citizens alike must cooperate to achieve meaningful savings in both energy use and dollars to ameliorate the burden of rising costs of energy; and

WHEREAS, such cooperative efforts are beginning to have an impact on our energy-use habits and to demonstrate reduced energy consumption;

THEREFORE, I, Leon Lederman, Director of Fermi National Accelerator Laboratory, proclaim October 1988 as "**AMERICAN ENERGY MONTH**" at Fermilab, in conjunction with the national observance, because it is important for all citizens to be aware of the necessity of conserving energy for our mutual benefit.

**In Witness Whereof, I have hereunto set my hand.
Done at Fermi National Accelerator Laboratory
this Seventh day of October, in the Year of Our Lord
one thousand nine hundred and eighty-eight.**

Leon M. Lederman
Director



FIRE PREVENTION WEEK
OCTOBER 9-15, 1988



FACTS ABOUT FIRE

Published in the public interest by the
National Fire Protection Association.
Non-profit firesafety organization with
headquarters at Batterymarch Park,
Quincy, Massachusetts 02269.

Facts and Figures...

1986 Reported Home Fire Statistics

565,500 Home Fires

4,655 Deaths*

18,575 Injuries*

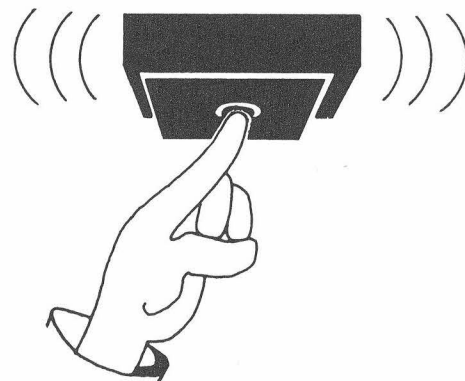
\$3,464 Billion direct
property damage

Figures based on 1987 Fire Loss
in U.S., 9/87 Fire Journal, by
Michael J. Karter.

*Does not include Fire Fighter statistics.

NFPA: Official Sponsor of Fire Prevention Week for over 65 Years

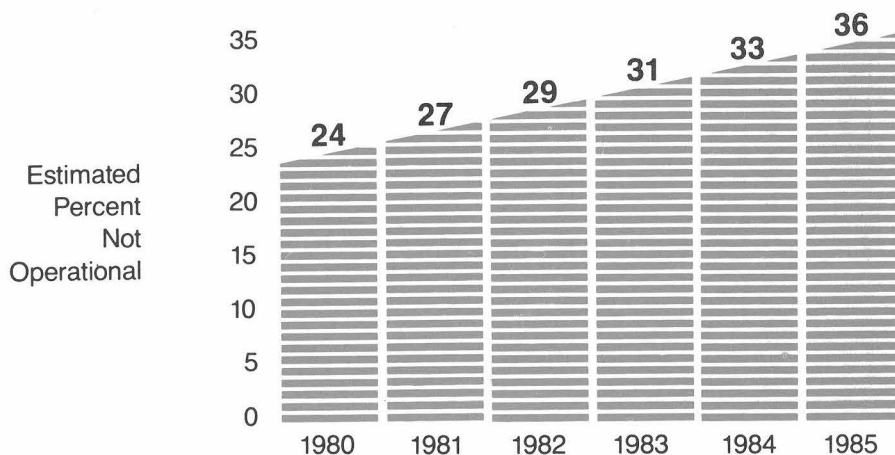
Fire Prevention Week marks the anniversary of one of America's worst conflagrations. The Great Chicago Fire of 1871. On October 9 of that year, fire killed 250 persons and destroyed 17,430 buildings in Chicago, at a cost of \$168,000,000. In commemoration of the date, Fire Prevention Week is always the Sunday-through-Saturday period which includes October 9. The observance originated in 1911 when the Fire Marshals Association of North America established Fire Prevention Day. Upon recommendation, NFPA members urged President Warren G. Harding in 1922 to proclaim Fire Prevention Week. Since then, NFPA has been the official sponsor, leading the nation in bringing the message of fire-safety to the public not only during Fire Prevention week but also the whole year through.



"A Sound You Can Live With... Test Your Detector!"

This year's Fire Prevention Week theme, "A Sound You Can Live With . . . Test Your Detector!" emphasizes the importance of smoke detectors, their proper installation and testing. Battery operated smoke detectors should be tested weekly and AC powered detectors should be tested monthly to make sure they are in good working order.

One-Third of Home Detectors Are Not Working!



Source: NFPA Analysis of 1980-85 NFIRS, NFPA Survey

You Need...



...to have home smoke detectors.

The chances of dying in a home fire are cut in half if a detector is present. That's why it's good news that in 1986, three fourths (77%) of all U.S. homes had at least one detector. Unfortunately, statistics show that only one third of the homes having fires have detectors, which is evidence that the families needing protection most are least likely to have it. Also, in one-third of those homes with them, the detectors are not operational — direct proof of the need for regular testing and maintenance. Detectors are the leading life-safety device in home firesafety — and they must be used even more widely.

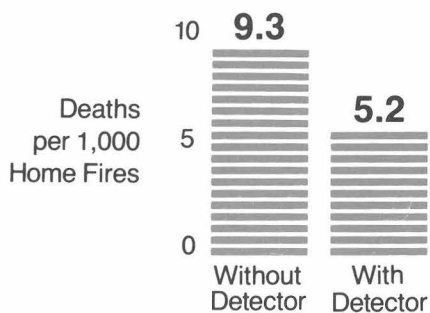
...to Fight Arson.

Schools are a great place to start! Arson and suspected arson constitute the largest single cause of property damage due to fire in the U.S. In 1981–85, these incendiary and suspicious fires accounted for an estimated 56% of all fires in educational properties and 73% of associated property damage, for a national estimate of roughly \$70 million in losses per year. Of those arrested for all arson offenses in 1986, 40% were under age 18! Clearly juvenile vandalism is the leading motivating factor in arson — and it can be stopped.

...to Use Wood Stoves Safely.

Since 1982, there have been an average of more than 50,000 home fires each year involving wood stoves and these fires have resulted in more than 100 deaths per year. Home heating is by far the leading cause of home fires, and wood heating accounts for nearly three-fourths of that total. Proper installation, proper maintenance, and safe operation are essential — and more homes with wood stoves must follow these practices.

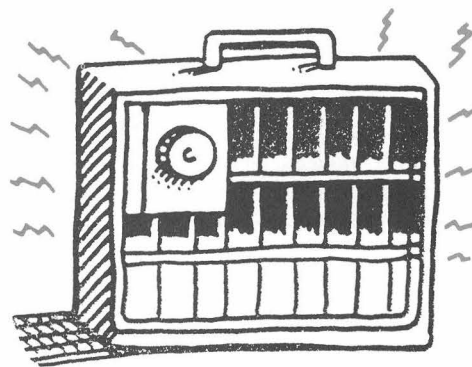
Home Smoke Detectors Cut Your Risk of Dying in a Fire in Half!



Source: 1980–85 NFIRS, NFPA Survey

...to Prevent Fires Involving Portable Heaters and Space Heaters.

From 1981–85, it is estimated that fire departments annually received reports on roughly 140 home fire deaths involving wood stoves, another 140 per year involving portable electric heaters, 110 per year involving portable kerosene heaters, and another 110 involving gas-fueled space heaters. Add to these another 60 deaths per year from fires in chimneys and chimney connectors, installation or placement of heaters too close to combustibles, fueling errors, and other forms of misuse are the leading causes of fatal fires involving these heaters. These are among the leading causes of fire death in America — and they must be stopped.

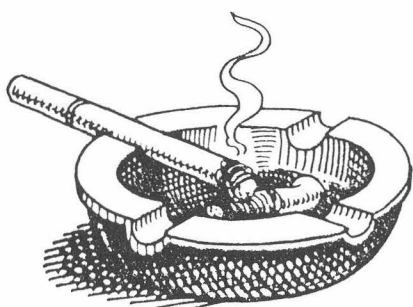


...to Prevent Home Fires.

In 1986, one- and two-family dwellings and apartments accounted for more than three-fourths of all civilian fire deaths and more than two-thirds of all civilian fire injuries. That was not an unusual year: homes account for thousands of reported fire deaths and injuries each year. Any realistic effort to reduce America's fire losses must begin with the home, and in most cases that means public education. Despite dramatic recent reductions, the U.S. home fire death rate remains the highest in the western world — and it must be reduced.

...to Reduce Smoking Fires.

Smoking-related fires are by far the leading cause of deaths in fires. In 1985, roughly 1,700 persons died in fires involving smoking materials. In building fires, smoking materials accounted for one-third of all fire deaths with known cause. Upholstered furniture, mattresses and bedding were items most often ignited in these fatal fires. Careless handling of smoking materials is deadly — and it must be reduced.



...to Prevent Cooking and Other Kitchen Fires.

Each year the U.S. averages more than one home structure fire for every four households, and three-fourths of these are kitchen fires, most never reported to fire departments. That amounts to about 17 *million* kitchen fires a year. While most of these fires are small, all of them are upsetting and traumatic, and cooking fires have killed an average of nearly 400 persons per year in 1980–85 in one- and two-family dwellings and apartments. Firesafety begins with the most common fires — and they can be prevented.

...to Protect the Elderly From Fire.

Based on 1981–85 statistics, persons aged 65 to 74 have a risk of dying in home fires that is 49% higher than the average, relative to the size of their population. For persons aged 75 or older, the risk is roughly three times the overall average risk! Smoking and heating related fires are the leading causes of death for the 75-and-over group, as for most age groups, but there are also an unusually large number of cooking-related fire deaths. More than a third of the over-74 victims were specifically cited as having mental or physical handicaps, often age-related. Special care is needed to protect the elderly — and it can be done.

...to Practice Exit Drills in the Home.

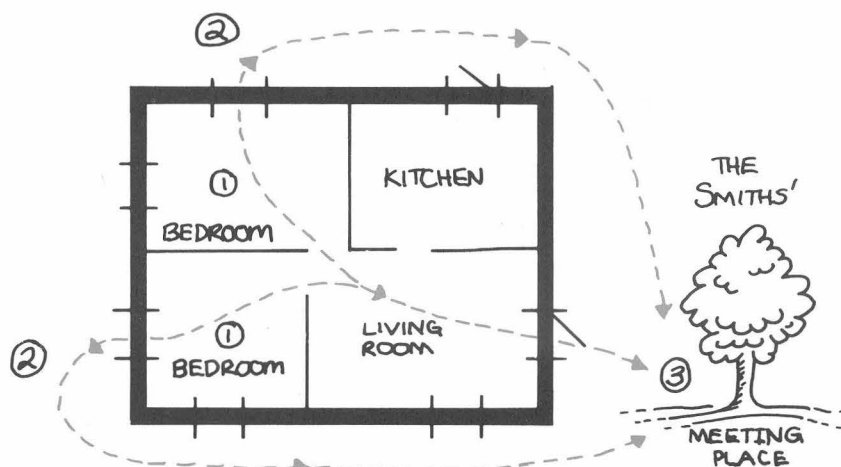
While three-fourths of U.S. homes now have detectors, a detector only warns you of fire; it cannot save you unless you know how to use the early warning to escape. Half of the households without detectors have never worked out an escape plan, and neither have a third of the households with detectors. What's more, most of those with plans have never rehearsed them. You need to know how to escape — and exit drills are the answer.



...to Protect Young Children From Fire.

Children under age six have more than twice the risk of dying in home fires as the general population, relative to the size of their population. Roughly three in ten of these deaths involve children playing with some dangerous material, typically matches or lighters; but, heating-related fires, arson, and suspected arson are also important causes. More than 90% of the victims were either asleep or too young to react effectively to the threat of fire. Young children need someone to protect them from fire and teach them how to escape — and we know how to do it.

Armed with the right information, you can meet these needs, taking an active role in preventing fires in your home, your community and around the nation.



Smoke Detectors

Where shall we put them?

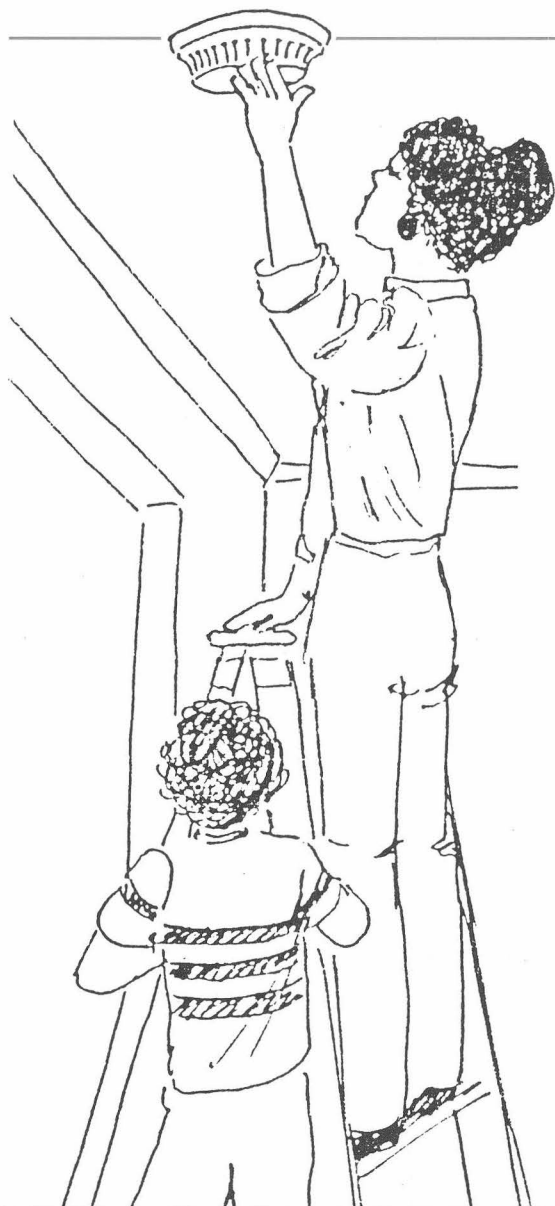
Directions

Read each sentence below.

Look at the four answer choices beneath each sentence.

Decide which word belongs in the sentence.

Circle your answer and check your score.



1. A smoke detector is needed on each ____ of the home.
A. level B. house C. fence D. lawn
2. A smoke detector is needed outside the sleeping ____.
A. people B. dogs C. clothes D. area
3. A smoke detector is needed inside the ____ if the occupants sleep with the doors closed.
A. pantry B. closet C. bathroom D. bedroom
4. Smoke detectors should be ____ from all bedrooms.
A. far away B. safe C. audible D. removed
5. Additional smoke ____ are needed for early warning in special areas.
A. fences B. yards C. detectors D. maps
6. Each smoke detector should have a National Testing Laboratory ____.
A. fire B. label C. box D. candle
7. Follow the manufacturer's cleaning and ____ instructions on a smoke detector.
A. scrubbing B. storing C. testing D. fixing
8. Each smoke detector must have a continuous ____ supply.
A. food B. water C. power D. sleep
9. Test each smoke detector ____.
A. sometimes B. next week C. Christmas D. regularly
10. Families should work together on a ____ to maintain smoke detectors.
A. box B. house C. plan D. yard

SCORE: 1-5 Poor
6-7 Fair 8-9 Good
10 Excellent

Answer Key
Smoke Detectors — Where Shall We
Put Them?
1. a 3. d 5. c 7. c 9. d
2. d 4. c 6. b 8. c 10. c