DESIGN

Now that you have done the work to identify the fire and life safety problems in your community and selected your messages and target audiences, you can use the information in this section to design your lesson plans. Remember that the lesson plan is the blueprint for your classroom presentation. Classroom teachers and principals often ask to see it.

You should have an overall program plan, that includes the individual lesson plans that will help you achieve your program goals. The program plan may need to be adjusted during the implementation.

The next section of this guidebook contains the key fire and life safety behaviors and their objectives. There are also the related strands of the Massachusetts Comprehensive Health Curriculum Framework, other behaviors that may be combined in the lesson, learning styles, helpful hints and teacher's notes. At the beginning of each section for a particular age group is a list containing the behaviors with their reference numbers, whether it is an essential or supplementary behavior, and developmental information for that age group.

Key Behavior Pages

To create a lesson plan, the first step is to look at the behavior description page. Take a look at the first behavior in the next section.

- The title describes the behavior that you want to teach: Understanding and Practicing Match and Lighter Safety (Fire Tools).
- Under the title is the target group (Ages 3-5 Preschool) and the safety group (Burns).
- The box on the right is for quick reference - PRE, meaning preschool and the reference number refers to this particular behavior for this age group.
- Appendices A, B, C and D will give you additional information. For example, Appendix A contains resource materials that you might use in your lesson or that you might incorporate into your presentation such as curricula, videos, and handouts.
- The next box gives you the information to connect the behavior to the Massachusetts Comprehensive Health Curriculum Frameworks. This important information will assist you in convincing schools to allow you the time to come into the classroom as it provides justification for how the lesson fits into the frameworks that the schools are required to follow.
- The developmental information helps you to plan a lesson that is appropriate for the age level that you are teaching. It provides valuable information about the attention span and some generalized information about the age group.

DESIGN (Continued)

- The next box states the learning objective for the behavior that you are teaching. As you will note these are stated in a way that they can be measured, meaning they are measurable objectives.
- The seven kinds of learning styles are listed on each page to assist you in creating a lesson plan that incorporates more than one.
- There are suggestions about other behaviors that can be combined but be careful not to try to teach too many lessons in one session, especially with younger children.
- The helpful hints can provide you with some very practical information.
- You can use the teacher's notes section to note something that worked well or did not go over so well so that when you teach the lesson again, you will remember what worked and what did not.

Let us take a hypothetical situation. You have completed the identification process and have determined that people in your community are dying in fires in their own homes and that one-third of those who died were children. You have also identified that the children were not notified in time to save themselves, or did not know enough to get out in time. You have selected the first grade as your target audience and have decided to teach them about home escape planning, calling your lesson "Home Fire Escape".

In the guidebook turn to the combined first and second grade behaviors and choose the behaviors that pertain to your identified problems. They would likely be:

-Behavior Ref. # 678-007 UNDERSTANDING SMOKE DETECTORS / ALARMS
-Behavior Ref. # 678-008 UNDERSTANDING AND PRACTICING ESCAPE PLANS
-Behavior Ref. # 678-009 UNDERSTANDING AND CRAWLING LOW UNDER SMOKE

Please read these behaviors now.

It takes approximately 25 minutes to teach each behavior. This is within the children's attention span according to the developmental information provided for this age group. You will notice that we have chosen only 3 of the 12 essential behaviors recommended for this target group. There is a lot more to teach if you get the opportunity to return to the class. Accept that with the time restrictions, you cannot cover everything you would like to, and do it well. Simply lecturing the children will not be effective.

Review the 3 behaviors you have chosen and select the key objectives you need to cover. It will be very helpful if you can design your lessons with an interdisciplinary

DESIGN (Continued)

approach. This involves relating your lessons to what is already being taught in the classroom, or for older students, designing a lesson that will fit into classes such as language arts, history, math, etc.

Before going into the classroom contact the teacher and discuss what is being taught and where your lesson might best fit in. For the target age group in our example, perhaps they are learning vocabulary words that are opposites. In your discussion with the children about home escape, you can then emphasize the opposites, such as if the heat and smoke go up, then they need to stay low to the floor and crawl low, or if there is a fire inside the house they need to go outside of the house and stay out.

If possible, take the opportunity to wish students a Happy Birthday. If you can find out the children who have birthdays on the day of, or close to your presentation, use them as your helpers. Be sensitive to the fact some religions do not celebrate birthdays.

For older students ask the biology teacher if you can come in to present a lesson about burns during the segment on skin, or have a math class find data about the fire problem in the state and in the country.

Regardless of the age or grade level of the group you are presenting to, if you choose behaviors specific to that age group and integrate your lesson plans with what is already being taught, you will be a successful Fire and Life Safety Educator. Experience has shown that if you have success in what you are doing, chances are that you will become too busy to do it all yourself. You will have to start training other professional firefighters to become fire and life safety educators.

Props and Hooks

Students of all ages can benefit from seeing and touching props. For young children show them pictures of things that are hot and not hot, and use a toy phone to practice calling 9-1-1. Some other ideas include smoke alarms, electrical cords, a pot with a lid, pot holders, a space heater, a candle in a jar. For seniors you might add a timer, a spoon, or a pot holder to take with them if they leave the kitchen to remind them something is cooking. Oversized objects often make good props, as do the tools of your trade. Having these types of objects to display and/or use will complement and enhance your lessons.

DESIGN (Continued)

Lesson Plans

Every educator should create and follow a lesson plan. This blueprint will help you to stay on track during your presentation. Firefighters are extremely popular visitors in any classroom and it is easy to get sidetracked with questions or stories from the students. The lesson plan ensures that you and every member of your team are presenting information consistently to all classes. A lesson plan outlines your objectives, procedures and materials. It will increase your credibility with teachers and administrators. Although it is generally important to follow the lesson plan, do not hesitate to take advantage of "teachable moments" - situations that arise during a class that spark a particular question. Even if the exact issue is not part of your plan, the personalization of the issue may be too valuable to pass up. Be sure to plan a few extra activities in case the lesson moves more quickly than you anticipated.

In Appendix C you will find the lesson plan template used in the Mass. Firefighting Academy's Public Fire & Life Safety Educator course along with some examples.

After you have had a chance to evaluate your presentations and your program as a whole, you may need to redefine your goals, select other or additional target groups, and/or find ways to increase your resources.

Remember that while you are in the school as a firefighter, you are an educator. **Do not inspect, enforce or investigate while you are there to teach.**

The next section of this guidebook contains the fire and life safety behaviors and their objectives

Good Luck! We wish you success in designing your programs.

A Note to Fire and Safety Educators about Inhalant Abuse

Inhalant abuse prevention is relevant to three of the topics in this guidebook: fire safety, poison prevention and drug abuse prevention. **Review this information each time** you plan to teach safety with drugs and alcohol, poison prevention and understanding gas and flammable liquid safety. As you use this guidebook, there are some things to keep in mind about inhalant abuse.

Nationally about one out of four sixth and eighth graders have tried an inhalant (Partnership for a Drug Free America, 2003). Among Massachusetts sixth and seventh grade children, inhalants are the third most abused substance, after alcohol and tobacco. Use may start as early as the third grade and tends to taper off in high school. The average of first use of inhalants is 11.3 years, according to the Massachusetts Youth Survey, 2004. (See "What We Know About Inhalant Abuse in Massachusetts" at www.mass.gov/dph/inhalant.)

What are Inhalants? They are volatile solvents and gases that children as young as third grade may be inhaling to become intoxicated, often without being aware of the dangers. Inhalants include over a thousand common household, school and youth center supplies, such as typewriter correction fluid, computer air duster, gasoline, lighters and lighter refills, markers, solvents, solvent-based products and any product in an aerosol can.

Inhalants can act like a drug (they are central nervous system depressants, like alcohol, but take effect very quickly and are short acting) and are addictive. In the US there are about as many people addicted to inhalants as there are heroin addicts. Inhalants can cause death from Sudden Sniffing Death Syndrome (heart arrhythmia), fires, explosions, asphyxiation, and central nervous system depression. Inhalants can cause death the first time or any time. In a major United Kingdom study of children who died from inhalant use, 39% were trying it for the first time.

Prevention Approach in Elementary School

First, we never explain to children what inhalant abuse is. We have had too many examples where such instruction has led to experimentation. Nor do we explain what products may be abused as an inhalant or how to abuse them. We never tell children that these products can cause a euphoric effect. Instead we give messages about proper use of products, reading labels to understand safe use of products, and using products as they were intended to be used. We talk about the consequences of misuse: fires, explosions, accidents, asphyxiation, and poisonings. We want children to see these products as requiring careful use so that when they are older and learn that they may be used as a drug, these earlier messages will weigh against a harmful decision.

Caregivers' Role in Inhalant Abuse Prevention. Parents need to be aware of the problem of inhalant abuse. Several free parent handouts are available to send home to parents (see the inhalant resource list below). Be aware though, that some of these materials contain too much information for children; care should be taken so that children don't learn about huffing from the material you send home. Adult caregivers should also be aware that homes are the most common source for inhalants and that a common time for inhalant experimentation is at home after school. Another way for adults to learn about inhalant abuse is through the web site, www.inhalantabusetraining.org, which has a 15-20 minute training on what caregivers can do to prevent inhalant abuse.

Caregivers can play an important role in inhalant abuse prevention. One of the activities described in this curriculum guide is the Home Hazard Search. This is an opportunity for adults to become aware of the many inhalable products in the home. They can be asked to put them in safe storage, begin to purchase non aerosol and non-solvent based products, more closely supervise the use of solvent based products and products in aerosol cans, and model safe use of products by following instructions on the labels. Because these products are so common and often sold right along with food, it is easy to underestimate their danger especially when used incorrectly.

Lighters. Cigarette lighters and refills are common products that are popular inhalants. The lighter fuel is also quite deadly, accounting for about 25% of inhalant deaths. It is popular because adults don't think of these products as a drug, they are compact and easy to conceal and leave no odor or residue. When teaching about **Lighter and Match Safety**, we want to stress not only the danger from fire, but also that the fuels are dirty and not good to breathe in a concentrated form. It was never meant to be put inside your body and is a poison.

Gasoline is another readily available and popular inhalant. Like lighters, we want to stress the dangers (fire, explosions, and poisonings) and not talk about the drug-like properties of this inhalant. Most people have had a brief whiff of gasoline while refueling a car (some people will even admit they like the odor) and we do not want to exaggerate the risk as we stress the danger.

Helium balloons and tanks are other products whose danger is underestimated. When helium from balloons is breathed in it makes the voice high pitched. Kids think this is very funny. However, while helium is an inert gas, the pressure from the balloon can cause embolisms or air bubbles in the blood, a very painful, and on rare occasions, deadly condition.

When children see helium as safe, they may seek it out. One teenager on the North Shore was filling balloons with helium and put his mouth over the outlet valve. The pressure ruptured his lungs and he was killed instantly.

Another point to make about the gas in helium balloons is that it was never meant to be put in your body. It may contain other gases, dirt and oil that lubricate the compressors. Poisons can get into your body when you breathe in dirty air. It is like picking up a piece of food that has been lying on the ground and eating it. You have no idea if it is safe to put in your body.

Computer Air Duster is a popular inhalant. It is a colorless and odorless gas and is usually a Freon type compound. It is used to get the dust out of computer keyboards, mice, and the computer itself. Here again, we stress product safety messages. See the Massachusetts Department of Public Health Consumer Alert: Computer Air Duster for more information.

Environmental Safety Fire safety educators can help school personnel be aware of the inhalant abuse problem. You might offer some of the materials listed below to be distributed to school staff or do a short presentation at a faculty meeting. Also if a school is interested, you might make suggestions about safe storage of products (locking custodial closets and cleaning supply storage) and purchasing safer products that avoid solvents and gases. These include low odor dry erase markers instead of solvent-based markers, non-solvent, non aerosol cleaners, glues and paints. When solvents and solvent based products must be used, they should be used carefully and with supervision, according to directions, in order to model safe behavior.

Resources

Massachusetts Department of Public Health, Bureau of Substance Abuse Services, Inhalant Abuse Task Force An excellent resource for inhalant abuse prevention information. Request "A Parent's Guide: Preventing Inhalant Abuse among Children and Teens" (for adults only) by calling 617-624-5143 or e-mailing questions.bsas@state.ma.us. An inhalant prevention brochure, Inhalants Poison Your Body for middle and early high school children ages 10-14 and other handouts are available at http://www.state.ma.us/dph/inhalant. They have been modified to remove the names of products, how they may be abused, and their euphoric effects.

For questions about inhalant abuse, contact the Massachusetts Inhalant Abuse Task Force at 617-624-5143, or through their website at www.mass.gov/dph/inhalant or the New England Inhalant Abuse Prevention Coalition at 1-800-419-8398, by e-mail at information@inhalantprevention.org, or through their website at www.inhalantprevention.org.

Resources (Continued)

Virginia Inhalant Prevention Resource Guide, K-12. This inhalant prevention curriculum guide includes lessons and background material, developed by Isabel Burk, Director, The Health Network (845-638-3569) for the Virginia Department of Education. The Guide and other materials can be downloaded from http://www.healthnetwork.org.

"Danger! Toxic Chemicals" This is an inhalant prevention video targeted for students in grades six to nine. The video explains the dangers of inhalants and models refusal skills. It does not show what products are being abused or how to abuse them. This video is highly recommended because it uses the approach that inhalants are not really drugs, but are poisons, toxins, and pollutants. It is available to borrow from state prevention center libraries. Publisher: Hazelden Foundation. Video, VHS format, 14 minutes; 1-800-328-9000; Item 4063. $203.00

National Inhalant and Poison Awareness Week Local Coordinator's Kit, National Inhalant Abuse Coalition. This kit contains everything a school, community agency, or state program needs to conduct a community awareness campaign. It has complete guidelines for coordinators, news releases, and fact sheets, PSA scripts, camera ready art and suggestions for special events and more. Harvey Weiss, Executive Director. 1-800-269-4237. $35 + $5 for shipping and handling. Very informative website: www.inhalants.org (Not edited for children).

"**NIDA Research Report: Inhalant Abuse**." Published by the National Institute on Drug Abuse. This is a good overview of the inhalant problem. It is suitable for parents and as an introduction to the issue for professionals. Revised 2005. At www.drugabuse.gov/Researchreports/Inhalants. This may be downloaded and copied or ordered (NIH Publication No. 00-3818) from NCADI 1-800-729-6686.

"**CSAT Substance Abuse Treatment Advisory, Volume 3, Issue 1: Inhalants**." Revised 2004. This newsletter gives current information and statistics on inhalants, such as what they are, how they're used, who is using them, why they're popular, what they do to the body, and what their longterm effects are. Also discussed is the addictiveness of inhalants and how inhalant users receive treatment. Additional resources are listed. Bibliography included. This may be ordered (NIH publication no: 00-3818; NCADI no: MS922 at NCADI) or downloaded at http://ncadistore.samhsa.gov/catalog.

Inhalant Abuse Prevention:

Key Messages for Adults

1. More than 1,000 everyday products, including cleaning, office, and art supplies, solvents, gases, and shop chemicals have the potential to be abused as inhalants.
2. Inhalants are actually poisons, pollutants, toxins, and fire hazards. They are made of crude oil and were never meant to be inhaled.
3. These products are safe when used as directed, but when vapors are concentrated and breathed in, they can become dangerous and deadly.
4. There is no safe level of inhalant use. One-third (33%) of deaths are the result of first time use. Therefore, no use should be tolerated and any use should be followed up by a professional alcohol and drug assessment and education about the dangers of inhalant abuse.
5. Inhalants can be addictive, both psychologically and physically. There are roughly as many inhalant abusers and addicts as heroin abusers and addicts in this country.
6. Inhalants can cause permanent damage to the nervous system, lungs, liver, kidneys, and the brain.
7. More children are using inhalants than adults think – and at earlier ages. Nationally, nearly one out of four 8th graders has intentionally inhaled to get high. Recent surveys indicate that sixth grade use has increased so that they are now up to the level of use by eighth graders (that is, one out four have tried using an inhalant).
8. Because of all these reasons, inhalant abuse should be on your RADAR. Be alert for the signs of inhalant abuse: Suspicious use of products, chemical odors, rash around the mouth and nose, weight loss, paraphernalia (plastic bags, empty containers, and smelly rags). If you suspect use, follow-up with an alcohol and other drug assessment.
9. To learn more about inhalant abuse, go to the Parent's Web Training at www.InhalantAbuseTraining.org .

Examples: gasoline, butane, propane; any product dispensed in an aerosol can such as air freshener, computer air duster, WD40; solvent-based products such as nail polish and remover, white-out, glues, markers, paints
Mark Groves, "Andy, the Anteater Curriculum"
Source: John Ramsey, St. Georges Hospital, United Kingdom data, 2001-5 http://www.vsareport.org/
Source: National Household Survey, 2002. http://www.icpsr.umich.edu:8080/SAMHDA-SERIES/00064.xml
Source: Monitoring the Future Survey, 2003 available at www.monitoringthefuture.org
Partnership for a Drug Free America, Partnership Attitude Tracking Study, "New Findings on Inhalants: Younger Adolescents the Most Vulnerable." March 18, 2004. Report available at www.drugfreeamerica.org
Rev 5-07

Source:

New England Inhalant Abuse Prevention Coalition
www.inhalantprevention.org
800.419.8398