

State of the art on fire risk communication to children, youth and teachers

Efficient fire risk communication for resilient societies (eFIRECOM)

Project co-funded by ECHO -Humanitarian Aid and Civil Protection

(Helena Ballart, Pau Costa Foundation, Taradell, October 2015)

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Executive Summary

The purpose of this report is to present a state of the art in informational and educational tools that can be used to provide forest fire information to children, young people and their teachers as well as an overview of knowledge transfer in this ambit in different places around the world, where forest fires usually occur.

A compilation of experiences as well as best practices in communicating to children, young people and teachers obtained from literature review has been performed.

Then, it is necessary identify programs, activities, resources and best practices that are useful and successfully implemented in other regions. In addition, which are the main concepts that we want to transmit according to the social needs identified in the eFIRECOM background taking into account that this concepts have to include the needs of the different countries that are part of the eFIRECOM Consortium. Identify different methodologies to achieve the educational objectives, how is the best way to transmit the main concepts.

We intend to draw some conclusions for the eFIRECOM project by suggesting which kind of program can provide an educational toolkit through their adaptation to other areas and translation to different languages, as well as sketch a road map to the first implementation of the educational tool set.

1. Introduction

During the last several decades, there has been rapid growth in housing in and near forest areas in the Mediterranean region. The processes of land abandoned, rural depopulation and reduction of traditional forest use have resulted in forest ecosystems that are more vulnerable and combustible, thus increasing the associated fire hazard and risk.

As already mentioned, in the Mediterranean region are increasing the risk of forest fires affecting urban and peri-urban areas due to land use changes (increased contact between forests and houses) and too because of climate change (causing extreme fire events in sometimes unusual areas). Both factors lead to more intense fires that spread easily within the wildland-urban environment, compromising the safety of persons, fire-fighting services and infrastructures.

Wildfires in wildland-urban interface (WUI) are a serious threat to communities in many countries in the Mediterranean region as they extremely destructive, destroying homes and other structures and can kill people, as was the case in Spain 2005, 2009, 2012, Greece in 2007, also in California in 2003 and 2007, and in Victoria State, Australia in 2009.

The population is largely unaware of the risk and how to act in case of fire, and in turn, the need to protect people and infrastructures may compromise the resources available for fire suppression.

Moreover, communication and awareness policies usually have a limited scope and focus on general communication, and at best, intend to improve the organization of the affected populations in case of emergency, but they do not really promote a holistic culture of risk that allows to bring individual responsibility at the heart of prevention and preparedness. Therefore, it is necessary to raise individual awareness on the risk exposure and individual self-protection capacity, in order to reduce the social costs of wildfires, help achieve more cost-efficient policies and build more resilient societies.

The experience confirms that children, who represent 50% of the world's population, can and do play invaluable roles in planning and implementing disaster risk reduction and climate change adaptation activities. In spite of this evidence, children are, by and large, excluded from the activities that contribute to building the resilience of their local communities.

Raising resilient children is possible and can provide them with the tools they need to respond to the challenges of adolescence and young adulthood and to navigate successfully in adulthood. Despite the best efforts, we cannot prevent adversity and stress caused by hazards as wildfires; but we can learn to be more resilient by changing how we think about challenges and adversities.

Integration of disaster risk reduction into education is a long-term process, which aims to ensure that knowledge about hazards, risks, and appropriate safety behaviour is deeply embedded within communities, with children as "agents of change". To achieve this there is a need to promote knowledge of disaster management and behavioural change with regard to disaster risks through both formal and non-formal education, while at the same time reinforcing partnerships and encouraging cooperation on disaster risk reduction policies and practices.

The role of stakeholders according to The Sendai Framework for Disaster Risk Reduction 2015–2030 are the following:

“While States have the overall responsibility for reducing disaster risk, it is a shared responsibility between Governments and relevant stakeholders. In particular, non-State stakeholders play an important role as enablers in providing support to States, in accordance with national policies, laws and regulations, in the implementation of the present Framework at local, national, regional and global levels. Their commitment, goodwill, knowledge, experience and resources will be required.

When determining specific roles and responsibilities for stakeholders, and at the same time building on existing relevant international instruments, States should encourage the following actions on the part of all public and private stakeholders:

(ii) Children and youth are agents of change and should be given the space and modalities to contribute to disaster risk reduction, in accordance with legislation, national practice and educational curricula;”

Child participation in decision-making is increasingly recognised as fundamental to policy making that is sensitive to children’s needs and well-being, and therefore of value to wider society. It is also fundamental to children’s self-esteem and a means of empowerment.

2. Objectives

The purpose of this report is to present a state of the art in communicational and educational tools that can be used to provide forest fire information to children, young people and their teachers as well as an overview of knowledge transfer in this ambit in different places around the world, where forest fires usually occur.

Concretely this process includes:

- To analyse the current situation of risk communication and the tools used, at local, national, regional and global levels, for children, young people and their teachers.
- To analyse and identify innovative experiences and lessons learned on the development of risk communication tools for children, young people and their teachers.
- To draw some conclusions related to the MEFITU project that can provide an educational toolkit through their adaptation to other areas and translation to different languages, as well as sketch a road map to the first implementation of the educational toolkit.

3. Approach

Communication processes are pedagogical learning components. The educational process is essentially a communicative act. Today it is unthinkable to talk about communication and education as different processes.

Communication is the activity of conveying meaning through a shared system of signs and semiotic rules, in other words the act or process of using words, sounds, signs, or behaviors to express or exchange information or to express your ideas, thoughts, feelings, etc., to someone else.

An effective communication understands their audience, chooses an appropriate communication channel, hones their message to this channel and encodes the message to reduce misunderstanding by the receiver(s). It will also seek out feedback from the receiver(s) as to how the message is understood and attempt to correct any misunderstanding or confusion as soon as possible. Receivers can use Clarification and Reflection as effective ways to ensure that the message sent has been understood correctly.

Education is the process of facilitating learning. Knowledge, skills, values, beliefs, and habits of a group of people are transferred to other people, through storytelling, discussion, teaching, training, or research. Education frequently takes place under the guidance of educators, but learners may also educate themselves in a process called autodidactic learning. Any experience that has a formative effect on the way one thinks, feels, or acts may be considered educational.

Education is commonly and formally divided into stages such as preschool, primary school, secondary school and then college, university or apprenticeship. The methodology of teaching is called pedagogy. In eFIRECOM context, we divided our educational toolkit into primary school (children), secondary school (young people) and their teachers.

Good communication needs a good knowledge of the targeted group and their information level, opinions, attitudes, motivations, and values... An analysis is essential for assessing better the behaviour and the sensitivity of the public with respect to the forest, fires, prevention, and suppression.

The approach of the analysis within the report has different levels, the first level is regional, and cover the Mediterranean region, concretely the countries involved in the eFIRECOM project: Spain, France, Algerian and Tunisian.

Focusing on innovative, practical, useful and appropriate children programs for each country. However, despite their size and diversity, many of these countries of the Mediterranean region share some common characteristics, including geophysical, social and political contexts, they are in a near development level or in another previous one. In terms of natural hazards, all countries of the region are vulnerable to forest fires and wildland urban interface fires. They are in different fire generations; this fact encourages learning to each other, supported by transferring knowledge.

The second level of coverage is international, but is focused on the most interesting, advanced and innovative initiatives related forest fire risk communication with children, youth and their teachers. Usually regions with advanced initiatives in forest fire risk communication coincide with regions with a lot of forest fire events.

The analysis of the state of the art differs for rural communities where fire has historically been part of the landscape and has even been used as a management tool, however; on the other hand, there are the communities in wildland-urban interface areas where the perception and risk awareness of the population is usually quite low.



4. The analyse of the risk communication in different Mediterranean countries

This section describes different programs and methodologies about risk communication to children, young people and their teachers in the Mediterranean countries that participated in the consortium of eFIRECOM project.

4.1 Spain

In Spain, while the rural population may have a different view up close and in line with the complexity of the problem, the general perception of society, mostly urban seems to be simply that of a human unsolved problem that recurs every summer. This general view seems to move to the educational field, which continues to be a part of that society. From this habitual perspective, the approach to the subject in education can dangerously impoverished and limited to reproduce and transmit the aspects that again and again in the news are shown about. These are usually the human origin of the fire, the immense ecological loss caused, lack of means of extinction at one point or another of the fire, the need for mass evacuations and, unfortunately, too often the loss of human lives.

In the Spanish educational system the subject of forest fires does not appear directly in the curriculum of the primary stage, the term does not expressly appear wildfire risk nor natural. It does transversely, if considered as part of a general environmental education.

In order to know the curricular material generally available, it has conducted an extensive literature search, primarily via the web. All material found, initiatives of various institutions and organizations may be included in a series of groups according to their approach or so academic, and its content (LOS INCENDIOS FORESTALES EN EL SISTEMA EDUCATIVO: 10 IDEAS FUNDAMENTALES COMO BASE CONCEPTUAL NECESARIA. Martín Alcahúd Cortés. 2014)

These are the specific campaigns intended for schoolchildren:

- Guide for teachers "Evita el fuego...la diversidad es vida ". Magrama.
- Orientation manual for Teachers "Evita el fuego...la diversidad es vida". Magrama.
- Didactic material for carrying out activities on forest fires. "Fuego en el corazón. La prevención cerca de ti". Magrama.
- Environmental education school campaign to prevent forest fires. "Por ellos. Por nosotros. Por la vida contra el fuego". Magrama.
- Resources and materials for environmental education. Forest fires. Activities. Consejería de Medio Ambiente. Junta de Andalucía.
- Ministry of Education Programme "Crece con tu Árbol". Junta de Andalucía.

[Http://www.juntadeandalucia.es/educacion/nav/contenido.jsp?pag=/contenidos/oe/planesyprogramas/programaseducativos/programas_educacion_ambiental/arbol](http://www.juntadeandalucia.es/educacion/nav/contenido.jsp?pag=/contenidos/oe/planesyprogramas/programaseducativos/programas_educacion_ambiental/arbol)

- Un calor achicharrante! Comisión Europea. Luxembourg: European Union Publications Office.
<http://bookshop.europa.eu/es/-un-calor-achicharrante--pbml3211678>



Figure 1: Cover page of “Un calor achicharrante!”

- Forest fires. Ministry of Education. Gobierno de Canarias
<http://www3.gobiernodecanarias.org/medusa/ecoescuela/recursoseducativos/2011/01/18/incendiosforestales/>

- "Qué mala suerte: ¡se me ha quemado mi casa en el campo!"
<http://www.fuegolab.blogspot.com.es/2013/08/que-mala-suerte-se-me-...>

- “Brotos” Program. PROFOR. <http://www.programabrotos.es/>

- Galician-Portuguese language Scientific Journal of Environmental Education. “Ambientalmente sustentable”

- MEFyTU project. El bosque Mediterráneo, el Fuego y Tú.
http://www.paucostaoundation.org/single_projectes.php?id=4&categoria=divulgacio

Initiatives or reports regarding the social perception or looking to improve it as a tool for prevention and management:

- Triptych, “¿qué sabemos de los incendios forestales?”. Magrama.

- The reconciliation of interests as a tool against forest fires. Subdirección general de silvicultura y montes. Magrama.

- Education as a fundamental tool in preventing forest fires. Junta de Castilla y León. Domingo Villalba Ondurria. Pablo Martín Pinto

- Manual plan 42. Environmental Education in Fire Prevention.

- Local perceptions of forest fires and their motivations in Castilla y León. F. Molinero, A. García, C. Cascos, E. Baraja y J.C. Guerra.

- Sociological study on the perception of the Spanish population to forest fires. Asociación para la Promoción de Actividades Socioculturales. APAS. 2013
- The perception of forest fires in the rural property in Catalonia. Josep Gordi Serrat. <http://www.raco.cat/index.php/treballsscgeografia/article/viewFile/256751/343741>
- *Xarxa Forestal* - Service of Forest Management and Land Protection Department of the Environment, Agriculture and Fisheries. Balearic Islands. *Xarxa forestal* is a social network formed by groups and organizations that organize forestry activities to raise awareness about forest the value and importance. Promotes actions or activities of conservation and sustainable development of forest areas, encourages a culture of forest fire risk, and promotes self-protection and prevention measures.



Figure 2: Scale model of urbanization created at school. Facebook of Xarxa Forestal.

Media treatment and similar approaches:

- "Más leña al fuego; the informative treatment of the wildfires". M. Domínguez, C. Gonzalez, F. Pineda.
- Media and forest fire prevention. Federico L. Clauss Klamp. Profesor de secundaria. Sevilla.
- "Video La 2 Noticias". TVE on forest fires. Presenting the book of Juli Pauses "*¿Que sabemos de? Incendis Forestals*" <http://www.rtve.es/alacarta/videos/la-2-noticias/2-noticias-25-07-12/1490918/>

Brotos Program. PROFOR

The BROTES program is a pilot and pioneer educational project in Spain promoted by the Association of Foresters of Spain (PROFOR), which aims to integrate forest knowledge within the knowledge of the subject.

It is detected a profound ignorance of society about instruments that forest management can provide to contribute, on the one hand, to the solution of many socio-environmental problems and on the other hand, the ability to manage our environment in a sustainable manner.

The program includes forest education within the educational system to convert forests in classrooms, foresters in teachers of a playful, practical and diversified training. The subject areas covered by the project are: Environmental Awareness, Spanish and English Language, Arts Education, and Information Technology.

The objectives of the BROTES program are:



Figure 3: Cover image of Brotes program.

- Enter the forest pedagogy on school programming subjects Environmental Awareness and Science.
- Build a web environment that facilitates the gradual incorporation of digital resources as a teaching tool for the subject of Social Studies.
- Integrating useful digital resources to know, respect and admire our "means environment "free and open access.
- Knowing our immediate environment and the need to manage it in a sustainable way.
- Convey knowledge about forests, from trivia to know technicians on the management and conservation of forests.
- Arouse interest in forests.
- Promote admiration and respect for the forest and the people who work there.
- Generate joy and interest in the forest.
- Learning in the forest and about the forest.

Mefitu project.

The MeFiTu is a project to raise awareness of the forest fires problem for schoolchildren and society in general. It fits primary and secondary students. It consists of three activities, audio-visual application to introduce the concepts tailored to different learning pace. The second activity is the construction and burning of two models simulating two scenarios: a forest managed and another forest unmanaged where different fire effects are observed. The third is to visit a perimeter of an historic forest fire to know the state of regeneration through game activities.

The beginnings, the necessity and the design of Mefitu project



Figure 4: Cover image of Mefitu project.

Under the concept “by doing the same things, we cannot get different things” born the idea of creating a different kind of program for raising the children awareness in forest fires phenomena.

The idea is to develop an educational program and create an educational tool in digital format, themed ENVIRONMENTAL, aimed at students in primary and secondary, that is characterized by:

1. Work the cause of the spread of forest fires.
2. Content and development self-sufficient
3. Interactivity and dynamism with users (teachers, students ...).



Figure 5: Pau Costa Foundation Pilote Activity in kindergarten.

Introduction

Following episodes of fires in the peninsula of years like 1994, 1998, 2003... rethinking concepts and strategy to forest fires, as well as sensitization to future generations was necessary. With the fire of 2012 has seen that this need still exists. For this reason was born from Bombers de la Generalitat de Catalunya the MeFiTu project, The Mediterranean Forests, the Fire and you, a training and education program to raise awareness of the problem of forest fires for schoolchildren and society in general. This

project currently runs by the Pau Costa Foundation, which is looking for partners and sponsors for its expansion throughout Europe.

Objectives

The aim of MeFiTu is the understanding by society of three basic concepts in relation to our Mediterranean forests:

- They are natural elements strongly modified by the inhabitants of the Mediterranean region for thousands of years, that is, are man-made and are not virgin forests and wild forests.
- When we got to the causes of forest fires, the damage is already done. The current approach to forest fire prevention is in the spotlight the cause of ignition and the need to redirect efforts to the cause of the spread. This simple idea is directly correlated with forest management.
- Do not pose the fire as a destructive and evil element but as the natural and usual disturbance in Mediterranean regions, understand that we will never remove forest fires, which even are necessary to ensure the perpetuation of some species.



Figure 6: Audio-visual presentation of the Mefitu concepts.

The objectives to be achieved at the level of service provided to the community are based on acquiring skills related to the development of critical thinking:

- Keep a curious attitude toward reality of wildfires,
- Analyse information,
- To ponder,
- To reject preconceived prejudices
- Acquire securities of active environmental citizenship raising awareness on social responsibility to the forest and forest management as a tool for the prevention of large fires.



Figure 7: *Burning of scale models.*

Methodology

The MeFiTu project collects some of the conclusions in the main European Project FireParadox that has addressed the problem of forest fires, which recommends work to reorient the social perception of fire in Mediterranean countries (JOAQUIM SANDE SILVA, ET AL 2010). We must learn to live with fire, managing it as an ecological factor, without perceiving it merely as a factor of destruction to our forests. Understand that the spread of fire is related to the continuity and the burden of forest vegetation, being in our hands to change the structure of these abandoned forest to make them more resistant to fire, using tools such as forest management forests. To achieve social change that perception this workshop was designed.

A multidisciplinary team of professors and teachers together with professional firefighting (GALÁN SANTANO, Moises, et al 2007) and foresters developed the content. Several pilot tests were conducted to test the project in Catalan primary and secondary schools, which was well received. The results are set forth in Article ENVIRONMENTAL AWARENESS PROJECT: "MEDITERRANEAN FOREST, FIRE AND YOU". The MeFiTu has an expansive vision, with the mission to raise public awareness of the problem of forest fires.



Figure 8: *After burning of the scale models.*

The content of the program it is the following:

- Fire as a natural phenomenon. History and importance.
- Controlled fire. Everyday examples.
- Wildfire and fragile forests.
- And after a fire ... what? Strategies of Resistance of tree species to fire.
- The cycle of forest
- Sustainable forest management.

- Different methods for conducting forest management.
- Living with Fire: GIF, PAS and self-protection.



Figure 9: *Field trip with ADF. Sant Vicenç de Castellet. Spain*

Activities

- A conference for teachers or professors audience.
- An audio-visual presentation of Mefitu for pupils.
- Preparation and burning of scale models, which simulate two types of forests: managed and unmanaged. Performed by students. This activity incorporates an origami workshop for making the threes.
- Field trip with activities in the forest, preferably visit a nearby historic fire to school.



Figure 10: *Field trip with the “Consorti Forestal de la Serra de Llaberia”.*

4.2 France

In general, in France does not exist, as in many European countries, a general plan for raising awareness of forest fires with children, but there are regional initiatives working on forest fires prevention.

In the following paragraphs appear national initiatives related to environmental education on forests in general, and then regional initiatives focused on the forest fire prevention.

At the forest school program.



Learning and understanding the relationship between people and forests. A joint operation between the Ministry of agriculture and the Ministry of education.

Teaching programmes to discover about forests



Figure 11: Field trip of the “l’Ecole de la Forête”.

“A l’Ecole de la Forêt” lets pupils discover about forests and wood. Their ecological, social and economic roles are treated, as well as their long-term sustainability, within a framework of teaching programmes where the pupils take an active part in their discoveries. This means that forest are studied in ways as various as scientifically, technically, sensorially, economically and artistically.

Awaking a responsible attitude

A scientific approach aims at rising awareness and at developing the pupils’ critical judgment. The exploration of a forest near their school is a way for the school to become involved in its physical and socio-economic environment.

A special effort is made to keep parents and local people informed of research results and discoveries through exhibitions, press articles etc...

30000 pupils involved every year

This operation was started in 1990. Since then 1.200 classes have been involved each year. 500 projects are recognized and received funding from the Ministry of Agriculture. At the present time the operation is considering other approaches, with new projects that are still in the experimental stage and aim at encouraging different age groups to work together through, for example twinning between Agricultural/Forestry Colleges and Nursery Schools.

A national network for a multitude of partners

The two ministries are represented by delegates in every administrative region. Their chair committees which comprise of local focal points of the two Ministries partners such as institutions, specialists and local authorities. Local Ministry of Agriculture representatives provide technical know-how to teachers for their projects. Training sessions provide teachers and forest technicians, with the opportunity to share experiences among regions and with numerous tools, such as teaching kits, publications and regional Internet sites.

Education Pyrenees Vivant



The Environmental education for sustainable development in the Pyrenees assumes environmental challenges in the economic, social, cultural and managerial fields.

It is everyone's responsibility, through the implementation of strategies for collaboration among local actors such as NGOs, economic agents and autonomous communities, states and

Europe.

This refers to children, young, adults, throughout his life: at school, at work or at leisure and without discrimination. It is aimed at those who live here, the Pyrenees, and those who visit them.

**Departmental Association of
Communal Committees of Forest
Fires and Communal Reserves of
Civil Security in Hérault.**



*Association Départementale
des Comités Communaux des Feux de Forêts
et des Réserves Communales de Sécurité Civile
de l'Hérault*

Report of the cycle of school raising awareness

A report by the Commission Sensitization: every year ADCCFF34-RCSC organizes awareness sessions for students of elementary classes in voluntary towns.

In February 2015, they contacted all municipalities with CCFF member of the association to provide Wildfire Risk awareness classes in their primary schools. Ten of them have responded favourably to the proposal: Sussargues, Saint Jean de Cornies, Saint Geniès des Mourgues, Grabels, Teyran, Valergues, Villetelle, Garrigues, Saint Hilaire de Beauvoir and Saint Mathieu de Treviers (the last three cities having no common CCFF but received students from the cities of Galargues and Triadou)



Figure 12: Photo of Teyran School. 20/07/2015

The work was carried out by five members of the Sensitization Commission: Chantal, Guy, Christian, Gérard and Brigitte. We have educated 447 students in CE2, CM1 and CM2. A presentation was designed with the explanations and the time that was given questions / response allowed the children actively to debate with great interest. Many areas were addressed as fauna and flora, vegetation clearings, the causes of forest fires as cigarette butts and many others.

They ended the meetings with the distribution of leaflets stating the safety instructions and warning in case of necessity.

They continue to see great interest on the part of some teachers, we thank them.

Departement de la Lozère

DFCI : Prévenir les feux de forêt en Lozère

Air Watchtower, school fire, assistance to écobuages, awareness, every year the General Council of Lozère supports forest fire prevention measures implemented through the Defence of the Forest Against Fires (DFCI)

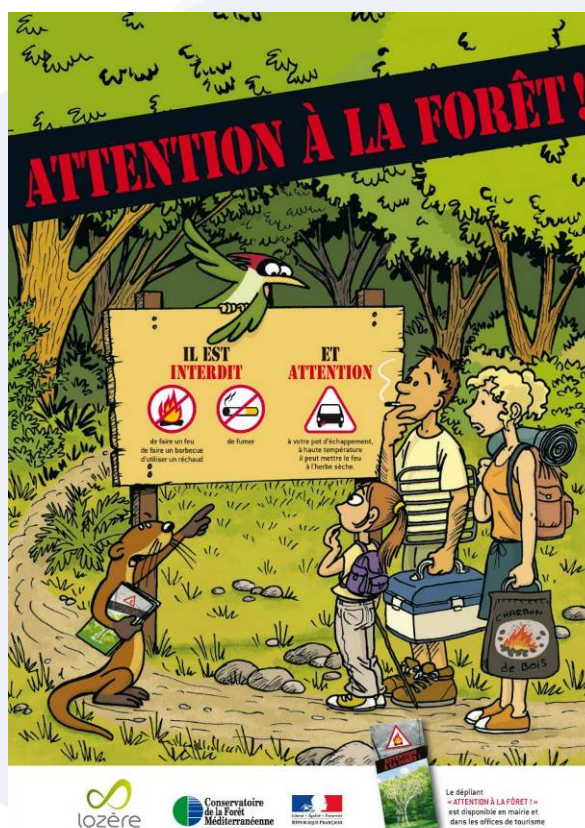


Figure 13: Attention in the forest campaign.



Figure 14: Communication leaflet about forest fire prevention.

Corsica experiences

Martine PHILIBERT. *Coordonnatrice académique risques majeurs, académie de Corse*

IFFO-RME n° 14 : Le Bulletin de l'Institut Français des Formateurs Risques Majeurs et protection de l'Environnement

The case and the charter "Fire Prevention"

Through the partnership with the Environment Office of Corsica, very involved for years in the prevention of forest fires, awareness among the educational community is strengthened.

Two major projects have been initiated and led.

It was possible to develop a training package "fire prevention" preferentially adapted to cycles 2 and 3 and the 6th and 5th. Inspired by a similar tool, created by the Institute of Mediterranean Forest (l'Institut pour la Forêt Méditerranéenne), the content of this training package was completed and adapted to our region.

Multiple selected tools and documents, was added an educational booklet for use of the case by the different levels in relation to the school curriculum. Colleges in Corsica were filled through pedagogical days of Life Sciences and Earth and corresponding security.



Figure 15: *Pedagogical resources for fire prevention in Corsica.*

She was also circulated to permanent centres of Environmental Initiatives (CPIE) and associations involved in the problems of risk prevention forest fires during his official presentation. Corsica schools will be equipped with this tool during the years 2007-2008 and its presentation will be made systematically during educational meetings. The case was recognized as an effective tool by the Directorate of Defence and Civil Security.

The second challenge, in connection with the INTERREG IIIC project "OPERATION SETTING REGIONAL FIRE", enabled through a contest for college students to develop a forest fire prevention charter on the model of the Charter of the Environment backed the Constitution since 28 February 2005.

Office de l'Environnement de la Corse

Awareness Fire Actions

Fire prevention is a regional challenge. It is necessary to raise awareness in order to change behavior. This requires intervene at two levels simultaneously and crosswise, the first awareness of school and the second, information and public awareness.

This approach is considered a priority by the Corsican Assembly (decision of 21 November 2003), which recommends the intensification of this type of campaign and the Regional Fire Prevention Plan (PPIFEN).

Awareness of school: "Save Our Island of Fire" Learning for Understanding, Understanding to Love, Love to Protect.

The Environment Office of Corsica is the master developer of the awareness campaign of school fire prevention in partnership with:

- The Rectory of Corsica, Academic Inspections and schools.
- Ministry of Ecology and Sustainable Development.
- Regional Centre of Pedagogical Documentation.
- The Corse Regional Natural Park.

- The Office for Agricultural and Rural Development of Corsica.
- The Regional Directorate of Agriculture and Forestry.
- The National Forestry.
- The Departmental Services Fire and Rescue in North Corsica and South Corsica.
- General Councils of North Corsica and South Corsica.

This preventive education aims to build a culture of risk in connection with the family and others in the island society and contribute to the development of eco-citizenship.

Knowledge of major risks, and fire in particular, must make the child on the one hand, a relay to raise awareness among adults and the other, as a future adult, encourage them to behave responsibly. This operation is part of the life and perpetuates a progressive educational approach: "Influencing behaviour for life".

The project is to support the student through the discovery of risk, from educational materials, and turn it into an actor through its active participation particularly in the context of a regional competition.

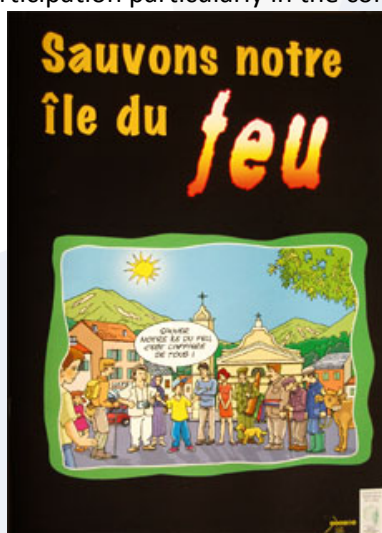


Figure 16: Example of educational material of Corsica

Educational materials

Educational materials developed in 2002 in collaboration with the Regional Centre for Educational Documentation and all partners.

It was made a teaching aid for teachers. This notebook can be based on a theoretical base incorporating specific examples in the region and thus to arouse the curiosity of the student to better awareness. An information leaflet was produced with the same partners and was distributed to all students of Corsica schools. This pamphlet encourages safe and responsible behavior towards fire from simple and clear messages.

In the first year, in 2002, 30,000 copies were distributed in schools.

Moreover, these educational materials are used by prevention actors: firemen, forest fire, interdepartmental agreement, and Awareness: PNRC facilitators, associations.

Western-Provence awareness actions of forest fires risk

Christine MITOLO. Educatrice Environnement, Service pédagogie à l'environnement de Ouest-Provence.

The territory of Western Provence, located in the lower Rhone Valley, composed of the municipalities of Fos sur Mer, Port Saint Louis du Rhone, Istres, Miramas Grans and Cornillon-Confoux has about 100,000 inhabitants. It covers 350 km² and has a varied landscape, alternating areas of activities, habitat and natural areas.

Related to the occupation of men, or nature itself, natural risks as well as technology are widely present. A device under the regulation, implemented by institutional, industrial and recognized associations, has a wide dissemination of information to the general public.



Figure 17. Children using Firefighting hoses

In addition, the intermunicipality of Western-Provence has created an educational service about the environment, one of the missions, in agreement and partnership with the National Education, is to further educate children about the risks present in Space where they live.

The prevention of major risks is a intermunicipal consideration, among others, by the teaching service at the Western -Provence environment.

Economic, geographic and historical context of the area calls for a preventive regulatory information: indeed, the industrial port zone of the Autonomous Port of Marseille which extends from Fos sur Mer in Port St Louis du Rhône has 13 such facilities "Seveso high threshold ".

Since 2002, the inter-department raises awareness of technological risk prevention in many schools, all concerned with this risk variably (industrial, nuclear with the base of Istres, Transport of dangerous goods with, among others, the station Sorting Miramas, and road transport in general ...).

Since 2006-2007 year, the theme Natural risk prevention has been taken into account with the risk of forest fires.

This risk is indeed very important on towns as Grans and Cornillon-Confoux because of the existence of important forests. It is in this respect that the teaching service environment worked with CE2 class school Georges Brassens in Grans: a cycle of educational interventions allowed the students a better understand of their immediate environment. To understand the risks and challenges, to focus on the mechanisms of fire and its spread, its impact on fauna and flora, the principles for action on forest fire prevention and individual safety instructions.

The tailor-made program is interactive and wanted to live by the establishment of 8 sessions of half a day alternating teaching aids: field trips, classroom sequences with exchange and debate from a little film that incites to questioning. An intervention by a volunteer firefighter student father with his truck and all the required equipment, evaluation through a questionnaire with the awarding of a "rescuer apprenticeship certificate."

To finalize this awareness, multimedia support was designed by students, supervised by their teacher; this slideshow transcribed all "knowledge" and "knowledge be" transmitted, as the feelings of children during this new learning experience. The CD media will soon be sent to other children of the European Community in the framework of a school-twinning project.

4.3 Tunisia

Forest Associations of Common Interest (Associations Forestières à Intérêt Collectif - AFIC)
Created on the initiative of the Ministry of Agriculture in 1996, these associations aim at organizing forest users and link them to the authorities. They have the task to ensure:

- The agro-silvo-pastoral management of private land within state forests;
- The organization of paid activities for the local population in the forest surroundings: grazing management, water point management, beekeeping...

The AFICs seek to reconcile the interests of the population within the forest with these of the administration by integrating forest dwellers into the forest development and conservation management.

4.4 Algeria

Convention Ministry of the Interior and Local Government & Ministry of Education April 2002

Due to its geographical location and the hazards to which it is subject, Algeria is exposed to several natural and technological hazards that require proper crisis management.
Population growth and occupation of new spaces have significantly increased population exposure to the risks of disasters.
Over the past decade an average of disaster every two years. Regarding forest fires an annual average of 25,000 Ha. In the typology of the major risks in Algeria, there are the Wildfires.

Considering Law No. 04-20 of December 25, 2004 on the prevention of major risks and disaster management in the context of development.

The strategy of the Ministry of the Interior and Local / General Directorate of Civil Protection, like other sectors (security, health, education, ...), must be supported by better coordination face risks in the city, in the workplace, at school and in our environment.

L'éducation au risque au milieu scolaire consiste à apprendre aux enfants à vivre avec les risques de la façon la responsable possible, à leur donner une culture de risque et une compréhension des aléas et des enjeux, et ce, afin qu'ils puissent adopter un comportement adapté.

It is in this perspective that the Ministry of the Interior and Local Government, represented by the DGPC and the Centre for Research in Astronomy, Astrophysics and Geophysics and the Ministry of Education intend to develop "hand in hand" a program of disaster risk prevention, awareness and education to profits and graduate schools.

Action Programme:

First phase:

- The information, raising awareness and communication of school populations designated villages spanned the first half of 2002 to date.

Second phase:

- A concerned student training was spread throughout the school year 2002 to date. It is established at the level of the villages designated a committee chaired by the village, composed of representatives of the Ministry of the Interior and Local Government (DGPC and CRAAG) and the representative of the Ministry of Education.



Figure 18: *Organization of national caravan prevention and awareness of the risks*

The program

For the three cycles (primary schools, secondary schools) more than 30 000 establishments and 8,364,103 students.

Program for students

Cycle 1: 6 TO 7 YEARS

- Identify risk
- Identify abnormal situation to safety
- Identify an abnormal situation and alert:
 - by seeking an adult
 - by calling for civil protection

Hours: Sequence 10 minutes daily for two to three weeks with a point during the year

CYCLE II: 8 to 12 years

Learning assessment of cycle I

- Identify risk, protect themselves and others;
- Alert giving a structured message;
- Apply the advice given;
- Press a bleeding wound with a clean cloth;
- Cool a burn;
- Describe the state of consciousness;
- Allow a traumatized in the position in which it is located;
- Install a person in the waiting position.

Hours: 02 hours per trimester

CYCLE III: 14 is 17

BASIC FIRST AID TRAINING

First Aid - initiates the gesture that saves

5. Findings: Interesting initiatives

This section provides a compilation of international initiatives focused on the most interesting, advanced and innovative programs related forest fire risk communication with children, youth and their teachers. These regions are USA, Canada and Australia, which are countries with a huge and extended experience in forest fires for the high occurrence of big wildfires.

5.1 USA

Smokey The Bear Kids' Pages – To teach kids about wildfire safety and prevention, look no further than Smokey the Bear. The long-running U.S. Forest Service campaign has endured into the digital age and the nicely designed “Smokey” site offers interactive games, tutorials, quizzes, and more.

United States Department of Agriculture (USDA) FOREST SERVICE SOUTHWESTERN REGION

Fire is an integral component of the forests in the Southwest. This curriculum uses fire as its central theme in order to provide information and education on a vast array of forest health and ecosystem management issues. The curriculum is correlated to Arizona and New Mexico academic standards, Forest Service conservation educator learner guidelines, and our key messages.



Figure 19: Cover page of the Fire Ecology Curriculum. USDA Forest Service.

Objectives:

- Build an educated and involved public
- Create support within the local community
- Reach future leaders with our messages
- Enhance our presence in the community

- Build a foundation of understanding about scientific principles related to fire's role in the ecosystem and Forest Service management
- Enhance classroom instruction while supporting state education standards

Benefits for Southwestern Region, Forest Service:

- Foster public involvement in forest activities and decision making
- Gain community support for forest programs and management techniques
- Educate future leaders about the Forest Service mission
- Enhance Forest Service presence in the community

Benefits for Schools:

- Supports academic standards
- Supports improving math, writing, reading and science skills
- Provides opportunities for exciting, hands-on lessons
- Demonstrates real-world applications of textbook lessons
- Augments regular classroom instruction
- Provides opportunities for students to learn about a range of potential careers

Key Messages:

(Each lesson is correlated not only to Arizona and New Mexico educational standards, but also to the following Key Messages.)

The National Forests of the USDA Forest Service Southwestern Region provide superior stewardship for current and future generations through the practice of ecosystem management.



Figure 20: A class of students listens to a presentation and watches a demonstration related to fire.

A. The Forest Service applies the fundamental principles of science and ecology in order to better understand and manage forest ecosystems.

1. Fire has a natural role in the ecosystems.

2. Southwestern forests are primarily limited by water availability, not light.
 3. Leaving nature alone has consequences, risks and trade-offs.
 4. All components of the environment function as a dynamic, interdependent and interrelated system.
 5. The study of the science of fire and its behavior is important.
- B. People are part of nature, and their actions have effects on the land.
1. People need to be careful with fire.
 2. Public lands are unique, valuable resources for which the public has a shared responsibility in their care.
 3. Human development near or within forest boundaries has a long-lasting effect and brings risks and obligations.
 4. The complexity of managing our public lands is compounded by the numbers of people living near or within our boundaries and the increasing demands from public land users.
 5. There are limits to sustainable development.
 6. The understanding of fire suppression techniques is important.
- C. The Forest Service seeks to improve overall forest health and lessen the risk of high-intensity, destructive wildland fires by working to bring the forests closer to historic, ecological conditions.
1. Prior to European settlement, Southwestern ponderosa pine forests had far fewer trees than today and had frequent, low-intensity surface fires.
 2. Infrequent, high-intensity fires - like those seen in mixed conifer forests of the Pacific Northwest- were not normal in ponderosa and pinyon-juniper forests before 1900.
 3. Forest conditions now are not natural or healthy.
 4. Because of unnaturally dense conditions, our forests are at risk for destructive wildland fires, insect infestations and diseases.
 5. In many places on Southwestern forests, conditions now are such that wildland fires can have devastating, long-lasting effects.
 6. The Forest Service cuts trees to accomplish specific objectives within the ecosystem such as reducing the risk of wildland fire, enhancing dwindling aspen stands, restoring grasslands, and improving forest health and wildlife habitat.
 7. The Forest Service manages for biodiversity, not single species.

8. Doing nothing is not always the right answer. The Forest Service alone cannot know the right answer, but by collaborating with the public, we can come closer to it.

9. Prescribed fire is one tool the Forest Service uses to meet ecosystem goals.



Forest Service employee teaches students about the fire triangle.

Figure 21: Forest Service employee teaches students about the fire triangle.

Lesson Plans

Kindergarten – Good Fire/Bad Fire
First Grade – Fire and the Animals of the Forest
Second Grade – The Fire Triangle
Third Grade – The Story of a Forest
Fourth Grade – What Smokey Bear Never Told You
Fifth Grade – How To Be a Wildland Firefighter
Sixth Grade – How Trees Tell Time
Seventh Grade – Effects of Fire on the Diversity of the Forest
Eighth Grade – Fire in the Wildland-Urban Interface
High School Biology – Saga of the Bark Beetle
High School Chemistry – The Role of Chemistry in Fire Management
High School Physical Science – People in Fire's Homeland

CAL FIRE. State of California

In a State as populated as California you can never be too informed. CAL FIRE has a long history of providing fire prevention, fire safety, and natural resource protection education to the citizens and visitors of this State.

CAL FIRE's Fire Safety Education Programs are spread state wide and come in the form of school programs, fair exhibits, posters, flyers and thousands of other printed materials, radio and television spots, community meetings, one-on-one contacts with wildland homeowners, and in recent years, the Internet.

Just For Kids

Kids can have fun and learn to be fire safe. Smokey Bear and Sparky the Fire Dog help kids be safe at home and when kids are out in the forest.

To get things started here are Smokey's 5 Rules of Fire Safety:

1. Smokey's friends don't play with matches or lighters.
2. If you find matches at home, give them to your parents.
3. If you find matches on the way to school, give them to your teacher.
4. If you see younger children playing with matches, tell an adult.
5. If you see a fire burning out of control, tell an adult.

Fire safety Education

- Fire Safety Inside the Home
- Holiday Fire Safety
- Defensible Space -ReadyForWildfire.org
- Fire safety outside the home



Figure 22: Screen shot of CAL FIRE web site

Outside, wildfire safety begins by making sure you, your family and your home are ready for a wildfire. Remember three simple steps: "**Ready, Set, Go!**". Being *Ready* for a wildfire starts by maintaining 100 feet of Defensible Space and hardening homes with fire resistant building materials. Be *Set* by creating a Wildfire Action Plan with your family. Finally, be prepared to *Go* and evacuate your home. Leave early, before it's too late.

California's Mediterranean climate lends itself naturally to wildfires, which is why residents and vacationers must take extra caution when outdoors and steps to prevent wildfires. "**One Less Spark means One Less Wildfire**".

Whether it's using powered equipment before 10 a.m. when the humidity is higher and temperatures cooler to reduce the chance of fire, to following proper guidelines for burning branches and leave debris on your property, to enjoying a campfire, we must all do our part to prevent wildfire.

During the fire season when the humidity drops and the winds increase, fire danger is elevated even higher and the public is asked to be extra vigilant.

Preparing for and preventing wildfires is everyone's responsibility.

Tools for teachers

While all of the information on the CAL FIRE website is considered informational and educational, there is a section, which provides teachers access to information about materials and programs geared specifically to educators.

Program Objectives

- To teach students about forest ecology and forest science through a variety of research projects
- To educate students about the nature of wildfire in relation to wildland fire management practices
- To develop students' understanding of and appreciation for the resources and importance of forests in our everyday lives
- To educate students about types of careless behavior that could lead to destructive wildfire, and how these behaviors can be avoided
- To teach children to be good stewards of the land
- To encourage creative thought and expression
- To involve parents in wildfire prevention

Program Components

- There are 4-page teacher's guide
- Four reproducible student activity masters
- One colorful and informative wall poster
- A reply card for teacher important comments

Target Audience

The program is designed for 5th graders but may be tailored to suit the needs and abilities of your students.

Interesting Books from USA

- *The fire that saved the forest.* By Mike Donahue (Author), Diane O'Keefe (Illustrator). When Bernie the bear and his other animal cohorts make a practice of extinguishing

every fire that starts in the forest, they realize that the trees are choking out open meadows and not allowing berry bushes and other foods they depend on to grow. One day, an uncontrollable fire devastates the forest, and the animals mistakenly believe their world has ended. Soon, however, new growth provides them with a bounty of food, and they realize how important fire is to the health of the forest. Age Range: 4 - 8 years. Grade Level: Preschool - 3

- *Forest Fire!* By Fraser (Author). Fraser's vibrant acrylic paintings and fascinating story teach children that fire, though frightening and destructive, also brings new life to the forest and its ecosystem. Full colour. Told simply and clearly, this story shows how plants and animals adapt to changes as their habitat moves through a cycle of death and destruction to rebirth and renewal. A bolt of lightning ignites an old, dead pine. As the fire spreads, the valley is engulfed by heat, smoke, and wind. Richly textured acrylic illustrations take readers from vibrant forest to threatening storm, orange blaze, and finally to the charred and barren landscape that continues to smolder for months. While the forest appears dead, it soon begins to show signs of recovery. This nicely illustrated title captures the immediate and long-range effects, both large and small, of a dramatic natural occurrence. Age Range: 4 and up. Grade Level: Preschool and up
- *Fire! The renewal of a forest.* By Celia Godkin (Author). Godkin provides a basic introduction to the role of fire in forest ecology. She describes the conditions that lead up to the blaze that begins during a thunderstorm. Animals flee but return shortly after rain extinguishes the flames. Plants emerge from blackened soil to start a new forest cycle. The author identifies various animals and plants in small inset illustrations that appear on each spread. In many cases, viewers can spot these same animals or plants in the larger panorama, but sometimes the smaller illustrations provide a close-up view of something that can't otherwise be seen. The book concludes with two-page views of a wilderness forest landscape in various stages of growth and a detailed explanation of how various animals and plants contribute to forest recovery after a fire. Although the story stands alone for the youngest readers, older students will appreciate the additional information. –Kathy Piehl, Minnesota State University, Mankato. Grade 2-4
- *The Charcoal Forest.* By Beth A. Peluso (Author), Lynn Purl (Editor). At first glance, the ashen landscape left by a forest fire may appear bereft of life. The Charcoal Forest proves otherwise. One by one, Beth A. Peluso describes the animals and plants found in the northern Rocky Mountains that have adapted to the aftermath of forest fires. Right after a high severity fire, the forest looks like a big charcoal drawing, she writes. But look closer: Beetles feast on the dead wood left by fire, birds dart around gobbling beetles, and plants rush to reclaim newly cleared ground. Peluso explains that regular blazes are actually essential for many creatures, including the golden blanketflower, which blooms radiantly against a dark tree line, and the black fire beetle, which lays its eggs beneath charred bark. Acrylic illustrations attest to fires vitality. A glossary, index, and list of resources will guide kids who want to learn more about these fierce yet fruitful flames. Age Range: 4 and up. Grade Level: Preschool and up
- *Wildfire.* By Taylor Morrison. Every summer, wildfires spread through the forests of the western United States, threatening homes and entire communities in their paths. Hundreds of firefighters work tirelessly to control this extremely powerful and

unpredictable force of nature. But despite the seemingly devastating effects of wildfires, they also play an essential role in forest ecosystems. For anyone who has ever been fascinated by the awesome power of fire, or intrigued by the courageous and carefully coordinated efforts of firefighters, Taylor Morrison's beautiful and thoroughly researched book takes a comprehensive look at wildfires, their causes, and the methods employed to control them. Age Range: 4 - 7 years. Grade Level: 5 and up.

- *The book of fire.* By William H. (Author), Jr. Cottrell (Author). Beginning at the molecular level, The Book of Fire introduces nonscientists to the anatomy of heat, ignition, and flame progressing from how a twig catches fire to how an entire forest burns. To help readers understand the science of fire, William Cottrell illustrates combustion events that most people are familiar with: a flickering candle, a smoldering campfire, a slowly cooking marshmallow. He uses these illustrations to introduce readers to wildland fire behavior, fire types, and fuel levels indispensable information for firefighters and fire managers, as well as homeowners who live in the wildland-urban interface. The Book of Fire is also a good resource for city dwellers who want to know the contents of smoky air or understand what really happened when the local newspaper says a wildfire "made a run." A glossary contains the most up-to-date terminology used by firefighters and fire managers.
- *Forest fires. A new true book.* By Arlene Erlbach. A young adult book illustrated with colour photographs that tells all about how fire affects forests, one of our most important natural resources. Chapters include: forests & fire; what makes fire?; how does lightning cause forest fires?; how do humans cause forest fires?; how can forest fires help a forest?; how does fire change a forest?; what happens to animals during forest fires?; kinds of forest fires; detecting forest fires; making decisions about forest fires; fighting forest fires; Smokey Bear; you can help the forest, too. Glossary.

Fire Science Degree. Guide to Schools Offering Fire Science Degrees



Fire Science Degrees went live in late 2009 with the purpose of becoming the top online source for prospective online fire science degree students. To fulfill this purpose, we have compiled and maintain several useful resources to educate students on their online options, keep them informed about online education news, and provide them with the information they need when choosing their online school. Additionally, we've made it our mission to educate people about the interesting and challenging field of careers, which fall under fire science.

Kid-Friendly Fire Prevention Videos

If you are interested helping your children learn about fire prevention, or even if you teach a class of children, it can be a good idea to use these videos, which are aimed at kids. Great resources for helping kids learn about fire prevention.

- [Fire Safety For Children: The Friendly Fireman](#): Kids learn about preventing fires with the help of “The Friendly Fireman.” Great rules that can help kids be safer.
- [Fire Safety Song For Children](#): Great song to help children remember to be safe at home. A great fire safety resource for kids.
- [Fire Prevention & Home Safety](#): This fire truck helps you learn how to be safe at home, as well as prevent fires. Meant for children, offering some fire safety tips.
- [Fire Safety for Kids](#): These puppets can help your children learn about better fire habits. Suggestions for being safe at home.
- [Buzzly Fire Safety](#): Kid-friendly look at fire prevention and home safety tips. This is designed for children ages two to 10 to learn how to keep from starting fires.
- [Serifon fire safety](#): Animation meant to help children learn about fire prevention, and how to be safe at home during a fire.

Preventing Forest Fires, and Camp Fire Safety Tips

These videos are about preventing forest fires. If you enjoy camping, and spending time outdoors, these are great videos to reference. Plenty of common sense suggestions and ideas.

- [Forest Fire Prevention](#): Basic video that can help you learn safety tips to prevent forest fires. Humorous video about teaching about camp fire safety. Make sure you do what you should to prevent fires.
- [A Day in the Forest with Smokey Bear](#): Looks at fire safety tips while in the forest. Iconic figure Smokey Bear helps you learn more about forest fire prevention. Especially helpful for children.
- [Addams family psa forest fires prevention](#): A fun trip back to the 1970s with this PSA on preventing forest fires by properly putting out a camp fire. A fun reminder that also brings a bit of nostalgia.
- [How to Build a Campfire](#): You can learn more about how to safely build a camp fire. A great resource for building the right kind of camp fire that will not result in the start of a forest fire.
- [Camping: Fire Safety](#): If you are not able to have wood fires in the area you are camping in, this fire safety tip can be quite helpful. Make sure you are careful, even when an open flame or wood fire is not part of your excursion.
- [Camping & Backpacking: How to Pack a Camping Stove](#): Learn how to properly pack your camping stove. You want to make sure you are practicing safety so that it doesn’t start a forest fire.

5.2 Canada

Over the last 25 years, “wildland fires” across Canada have consumed an average of 2.3 million hectares a year.

These fires occur in forests, shrub lands and grasslands. Some are uncontrolled wildfires started by lightning or human carelessness. A small number are prescribed fires set by authorized forest managers to mimic natural fire processes that renew and maintain healthy ecosystems.

A Kid's Guide to Forest Fires. Treeremoval.com. Canada and USA

Most kids know that a forest fire can be caused by a campfire that gets out of control, a lit match that is thrown into the brush, or even a burning cigarette that is carelessly tossed into the woods, but, did you know that a forest fire can be caused by a natural element such as lightning? The following websites will help you to learn more about the causes of forest fires, how they can be prevented and how some fires can benefit a forest ecosystem.

- [Smokey the Bear Explains Forest Fires](#) – Play a game, choose a story or select another fun activity from Smokey the Bear's office.
- [A Forest Fire Web Quest](#) – Try this web quest and learn what a helitack firefighter is along with many other facts.
- [Wildfire Safety Tips](#) – Find out what can be done to prevent forest fires.
- [Books on Wildfires](#) – Check out a list of storybooks for kids about forest fires.
- [A Fire Quiz](#) – Look at a fire quiz that outlines the basics of forest fires.
- [Facts on Forest Fires](#) – Did you know that lightning can cause a forest fire? Discover other interesting facts on this list of ten.
- [A Different Type of Fire](#) – Learn about wildfires, how they start, and how firefighters try to put them out.
- [The Facts Behind Forest Fires](#) – Find out about the causes of forest fires, how to maintain a safe campfire and more.
- [Forest Fires: Good and Bad](#) – Consider some of the good and bad qualities of forest fires.
- [All About Wildfires](#) – Work through each page of this web quest and learn more about forest fires.
- [Fire Information](#) – Check out descriptions of the different types of fires.
- [The Start of a Forest Fire](#) – Look at some of the ways that forest fires start.
- [FAQs Regarding Forest Fires](#) – Read a list of questions and answers about forest fires and find out when they start, why they spread and more!
- [Protecting a Home from Forest Fires](#) – Consider a diagram of things a person can do to make his or her home less vulnerable to fire.
- [Fire Prevention Printable Coloring Page](#) – Decorate this page that is all about protecting trees from fire.
- [Animals and Forest Fires](#) – Find out where some forest animals go when there is a fire.
- [Learning about Forest Fires](#) – Follow the steps of this web quest and learn all you want to know about forest fires.
- [Make a Fire Truck](#) – Read the instructions and make a fire truck of your own.
- [A Fire Prevention Activity Book \(PDF\)](#) – Find your way through a printable maze and work on a 'connect the dots' exercise to learn more about forest fire prevention.
- [A Glossary of Fire Terms](#) – Learn the meanings of words that are related to fires.
- [Facts Concerning Wildfires](#) – Discover what causes wildfires and how families can be prepared.
- [A Game of Putting Out Wildfires](#) – Play a game that lets you put out the wildfires and save a small town.
- [History of Fire](#) – Work your way through a history of fire that explains the different types of fire and more.

- [Campaigns for Forest Fire Prevention](#) – Look through the various campaigns used through the years in efforts to educate people and prevent forest fires.
- [How Forest Fires Begin](#)– Discover how forest fires start and how they affect the animals living there.
- [Causes of Forest Fires](#) – Learn about common causes of forest fires and other important facts.
- [Campfire Safety](#) – Check out Smokey’s tips for having a safe campfire that doesn’t get out of control and cause a forest fire.
- [Elements of a Forest Fire](#) – Read about the progress of a forest fire and what starts one.
- [Forest Fire and the Ecosystem](#) – Find out how wildfire can affect the health of an ecosystem.
- [Lightening and Forest Fires](#) – Browse some information about forest fires that occur in the southwestern portion of the country.
- [Eleven Facts about Forest Fires](#) – A list of facts that reveals the number one cause of forest fires.
- [Facts to Remember about Fires](#) – Learn about some of the ways to put out fires.
- [Birds and Forest Fires](#) – Browse some facts on how various species of birds are affected by forest fires.
- [Definitions of Words Related to Forest Fires](#) – Learn the definitions of words such as cat line, cold trailing, and flanking along with others.
- [A Controlled Burn](#) – Look at the details involved in a controlled burn and the benefits of it.
- [A Wildfire Learning Activity](#) – Meet a group of kids and test your knowledge with a quiz on wildfire safety!

Sécurité publique Québec. Public Education Material

Here are prevention products, tools and programs aimed at youth age group:

Education Material for the Youth

- [Youth website S.O.S. Sécuro – 6 to 12 years old](#)

The [youth website of ministère de la Sécurité publique \(in french only\)](#) is an essential educational space. It can inform and help children to prepare and respond to emergencies (fires, forest fires, floods, landslides, etc.).

The [teachers and parents section \(in French\)](#) provides educational exercises and tools to help young people to develop many disciplinary and transversal skills with fun.

- [Chief and Flash](#)

- *Flash junior – 3 to 5 years old*

Flash junior is a newsletter to educate children ages 3 to 5 about fire safety. It comes with Educator's handbooks "Ready-to-Use" for private and public day care centres.


[Flash Junior \(ages 3 to 5\) 📎 \(3,08 Mb\)](#)

[Educator's handbook for private and public day care centres 📎 \(486,62 Kb\)](#)

[Educator's handbook for kindergarten teachers \(children aged 4 to 5\) 📎 \(1,28 Mb\) \)](#)


- *Flash – 6 to 8 years old*

Flash is a newsletter to raise fire safety awareness in children. It comes with Educator's handbooks "Ready-to-Use" for 1st Cycle Elementary School Teachers.

[Flash \(ages 6 to 8\)](#)  (2,02 Mb)

[Teacher's handbook for 1st cycle elementary school teachers](#)  (812,32 Kb)

- *Other materials*

[Here are eight key fire safety tips that you should know](#)  (685,03 Kb)

[Chief's Promotional Products](#)  (537,58 Kb)

[Fire Hoses and Ladders Game](#)  (357,31 Kb)

- *Interesting Songs:*

Chief's Songs

[Hot Things! Song](#)

Words:

Intro

Do you know our little dog?
Named Chief
He will be very brief
Very careful is Chief
Very smart you know
Always ready to go

1st verse

When I see something hot
I should always think a lot
Fire burns and hurts a lot
Stop and listen right on the spot

Chorus

I stay away from hot things
Matches, lighters are warnings
If something happens and I burn my skin
Apply cold water, healing will begin

2nd verse

Candles are very pretty
But are only lit by Mommy
Cakes are very very tasty
But in the oven, leave them to Daddy

Chorus (Twice)

I stay away from hot things
Matches, lighters are warnings
If something happens and I burn my skin
Apply cold water, healing will begin

Finale

Apply cold water, healing will begin.

Fire! Fire! Song

Chorus

Fire! Fire!
Mr. Smoke Alarm is on
It tells you that you have to leave
Listen to it carefully
Fire! Fire!
Please stay calm, pay attention
You have to reach the gathering place
If you want to be smart and safe

1st verse

Take the first exit you see
Leave your things behind, you have to go
Close all doors behind you
So fire won't follow you

Chorus

Fire! Fire!
Mr. Smoke Alarm is on
It tells you that you have to leave
Listen to it carefully
Fire! Fire!
Please stay calm, pay attention
You have to reach the gathering place
If you want to be smart and safe

2nd verse

If smoke gets in your way
Get down on your hands and knees to crawl
You'll breathe much more easily
And then you'll see where to go

Chorus

Fire! Fire!
Mr. Smoke Alarm is on
It tells you that you have to leave
Listen to it carefully
Fire! Fire!
Please stay calm, pay attention
You have to reach the gathering place
If you want to be smart and safe

3rd verse

Once outside you have to wait
For our mommy or daddy
It could also be your teacher
Let them know (let them know) you're safe!

Chorus 2

Fire! Fire!
Firefighters are on their way
They're gonna do/ do all they can
To spray water and put out the flames
Fire! Fire!
Now everyone's outside and safe
We have to thank and be grateful
Mr. Smoke Alarm told us to go!

- Programs and Awareness Tools

- *Expect the Unexpected Program – 7 to 13 years old*

The only disaster-based educational program in Canada, Expect the Unexpected from the Canadian Red Cross is designed to help children, youth, educators and parents learn about the importance of disaster preparedness. It features in-class and at-home activities for topics including climate change, weather events, knowing the risks in your community, safety rules, making a plan, getting a kit and dealing with emotions related to emergencies. The program provides a variety of teaching and communication aids for teachers, educators, students and their parents, including facilitator's guides, activity booklets, videos, posters and participation certificates for students.

- *Forest fire prevention learning activities – 8 to 11 years old*

Activities prepared by Société de protection des forêts contre le feu intended to make young people aware of the dangers and causes of forest fires and how forests are protected against fire.

- *Babysitting Course – 11 to 15 years old*

The Canadian Red Cross Babysitting course teach basic first aid and caregiving skills to youth from 11 to 15 years old. Participants learn how to provide care to younger children in a variety of age groups, and how to prevent and respond to emergencies. Course also offers youth the training to promote themselves as a babysitter to prospective parents.

- *Toujours prêts! – Scouts from 7 to 21 years old*

Training days and community action for Scouts, girls and boys, on fire prevention.

[Guide for the Toujours prêts! program \(in French\)](#) 📄 (419 KB)

[Portable fire extinguishers \(in French\)](#) 📄 (1.6 MB)

[Order the promotional poster Toujours prêts 📄 \(in French\).](#)

5.3 Australia

Community Education

People and their actions (whether deliberate or not) are responsible for the majority of bushfires that occur in Australia. Some of the more common causes of bushfires in Australia have resulted from deliberate burning-off that gets out of control and fires escaping from burning rubbish. People and their actions (whether deliberate or not) are responsible for the majority of bushfires that occur in Australia. Some of the more common causes of bushfires in Australia have resulted from deliberate burning-off that gets out of control and fires escaping from burning rubbish heaps .1

However, it can also take only a single spark from machinery such as welding equipment, a campfire or outdoor cooking facility not properly extinguished or children playing with matches for a fire to begin.

With such a high bushfire incident rate resulting from the actions of people, community education in Australia is particularly important. Education takes on a number of forms and is generally designed to provide people with a better understanding of the risks they face from bushfires and the measures the community can take to minimise these risks.

A range of information brochures are made available to the general public which cover such issues as what measures people (particularly those living in bushfire prevalent areas) can take to minimise the spread of a bushfire and the protection of their property and lives before and during a bushfire.

1 Rivett, R. (1997), Bushfires – Living with Australia's Natural Heritage, Country Fire Authority, in association with the Geography Teachers' Association of Victoria Inc., Burwood East, Victoria.

Australian Government. Disaster Resilience Education from schools.

- National strategy for disaster resilience
- Disaster resilient Australia New Zealand school education network
- Tsunami lesson plans and activities

Every year Australian school students and their families are affected by bushfires, floods, cyclone, and other natural disasters. Teaching disaster resilience in our schools is a way of helping children and their communities to be better aware of the risks and prepare adequately for these difficult situations.

The [Disaster resilience education for schools](#) website provides teaching resources, including interactive games and media, aligned to school curriculum. Teachers can also use the [Disaster mapper](#), an interactive map to provide information about natural disasters' history. Learning through interactive and entertaining materials can improve students' engagement and understanding of natural disaster and strengthen a disaster resilience culture in the community.

For teachers and students, this toolkit of disaster resilience education resources focuses on both individual and community resilience, vital components to developing a shared understanding of the critical role everyone plays in developing a disaster resilient Australia.

Resources are designed to be flexible to individual learning styles and are aligned to curriculum.

National strategy for disaster resilience

The website and the app align to the National Strategy for Disaster Resilience (NSDR) by presenting disaster resilience education in a manner that engages today's youth and encourages enthusiasm for learning. The NSDR indicates that 'Information on disaster risk should be communicated in a manner appropriate to its audiences, and should consider the different needs, interests and technologies used within communities'.

NATIONAL CURRICULUM

The National Emergency Management Projects (NEMP) *Educating the Educators: Disaster Resilience Resource Mapping Report* is a component of a larger NEMP project: Educating the Educators – which aims to develop disaster resilience within primary and secondary students by improving teacher understanding and confidence in using Disaster Resilience Education (DRE) resources from Australian sources which are explicitly linked to the Australian curriculum.

Bushfires

During most summers, Australia will experience a significant bushfire event that can devastate lives, forests and impact on the suburban fringes of major cities.

For teachers: BUSHFIRE LESSON PLAN

The bushfire lesson plan provides teachers and students with an opportunity to pinpoint bushfire dangers around the home. It asks students to study the simple house plans for the Hot House and to identify the bushfire dangers around the house.

Key learning areas

- English
- Humanities and Social Sciences
- Health and Physical Education

Objectives

Participating in this lesson will help students to:

- develop an awareness of protecting property against bushfires
- develop their research skills and begin to explore a wider variety of sources
- express their learning by writing a report.

Please note: This lesson can be modified to incorporate other KLAs and to meet the needs of the students and specific content taught.

Required Resources

- 'The Hot House' activity sheet
- Coloured pencils or textas

Lesson Steps

Provide small groups with a copy of 'The Hot House' activity sheet. Ask students to read the information about the house and study the plan, then identify the areas that could present bushfire hazards. This can be done using coloured pencils or textas. Students will use the information and questions on the activity sheet to write a bushfire preparation report about the Hot House.

Country Fire Authority (CFA) VICTORIA IS ONE OF THE MOST FIRE-PRONE AREAS IN THE WORLD.

The Country Fire Authority (CFA) has a number of education programs that deliver to over 18,000 students every year. These programs focus primarily on creating awareness of fire safety strategies. One of CFA's corporate goals is to build and strengthen self-reliant, resilient communities. Fire safety education for children is an important part of achieving this goal. CFA continues to seek new approaches to disseminate fire safety education and is committed to continuous improvement in this space.

In 2011 a qualitative research study was conducted on behalf of CFA to identify what schools expected and needed from fire safety education programs and resources for secondary students. The study found the following:

- Teachers were apprehensive of approaching fire safety education themselves due to the unfamiliarity with the content. However, with consultation with an expert (CFA) teachers believed that a fire safety education program delivered by teachers would be best with the option of having a guest speaker.
- The approach to fire safety education needs to be flexible and have the ability to adapt to the varying nature of secondary schools. Secondary schools need to have resources available to them to carry out this type of education as well as support. There needs to be a standalone program (FSY) available for when the curriculum is simply too full to incorporate any other program.
- For fire safety education to be incorporated into the school curriculum it should be fully resourced and easy to implement.

Additionally, CFA receives numerous requests from secondary schools requesting resources and teaching materials to support student learning, particularly from VCAL teachers. These resources have been created to support VCAL teachers in teaching fire safety education to their students

PRIMARY SCHOOL

CFA offers a huge variety of materials for primary school kids, as games, quizzes, etc. Children can check out the new Fire Safe Kids game. Learn how to be bushfire safe by completing tasks, looking around and identifying fire hazards, take a quiz and learn about fire safety indoors. Play the Fire Safe Kids game.

Teacher can contact CFA through Fire Safe Kids program for schools. Presenters come to the school to teach pupils simple rules about fire safety in a fun way.

CFA photos are now available for download at CFA Pix, CFA's Official Image Gallery. To access the site, register a username and password using the register link on the home page. CFA Pix Website

Other sections of the site will also explain more about CFA including what we do, history and equipment.

- Information about current fires and incidents is under Warnings & Incidents.
- General CFA news and other information are available in News & Media.
- Information about how to make your home safe from house fire or bushfire is under Plan & Prepare.
- Need more information about a particular subject? Email education@cfa.vic.gov.au with your enquiry.

The material are classified as:



Figure 23: Captain Koala and Friends.

- CK & friends. Captain Koala and Friends. Kids can find out more about Captain Koala and his friends, like when they were born, their role in CFA, their favourite items and more.
- Activities. Whether kids are looking for a fire safety flash game, a crossword puzzle, or to print out a colouring sheet, they can find here.
 - Flash Games - Test your fire safety skills with a variety of games
 - Puzzles and Mazes - Help CK get through mazes or play a home defence game
 - Word Games - Play code breaker or challenge yourself with a crossword
 - Colouring Sheets - Print out a firetruck or a firefighter page to colour-in
 - Wallpapers and Screensavers - Save Captain Koala and his friends to your computer screen
- Project Info. CFA has loads of information for students involved in a school project.

Kids can download one of CFA Fact Sheets or check out the photos of CFA trucks and firefighters.

Links on the site also provide lots of information for school projects:

- About CFA explains what we do, our structure, locations, training grounds, equipment (trucks, stations and aircraft) and funding
- Volunteer & Career looks at volunteers, what they do and what they get out of being a volunteer
- Fire Safety has information on making your home safe from house fires and bushfires
- CFA Connect contains general CFA news and other information

Fire Safe Kids Game

Captain Koala and his mates, with kids help are going to prepare to be bushfire safe.

Kids can show CK how to clean up around their yard at home, and show them what you would take with kids if kids have to leave their home. There will be a special message for kids when kids have finished helping CK, James and Sophie become bushfire safe.



Figure 24: Interactive book of captain Koala.

SECONDARY SCHOOLS

CFA offers some interactive games for Secondary schools in the interactive bushfire website, there are three different sections:

- Fire Risk
- How Fire Behaves
- Fire Safety

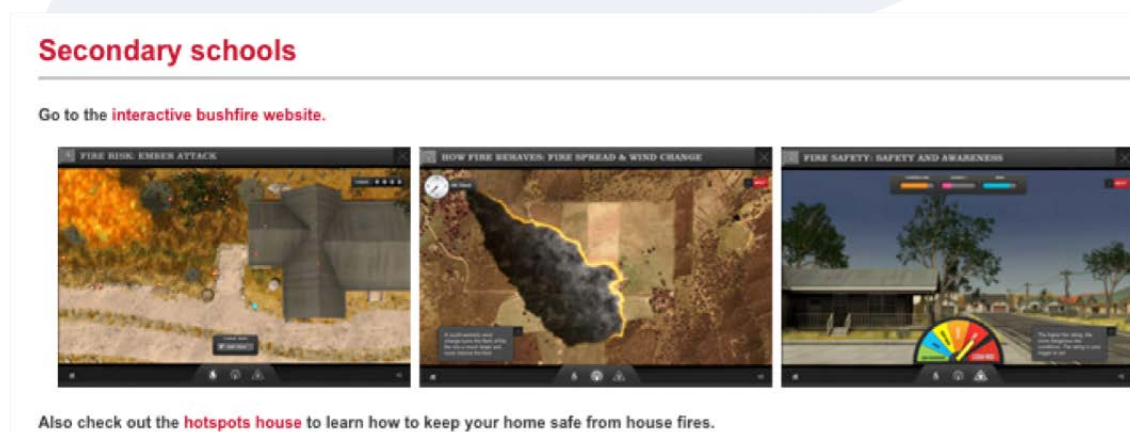


Figure 25: Screen shot of the web site. Secondary schools section.

The following section describes the games, the rules and the transmitted knowledge about the issue

FIRE RISK

Fire Danger Rating: The Fire Danger Rating predicts how a fire would behave if one started, including how difficult it would be to put out. The higher the rating, the more dangerous the conditions.

Instructions: Use the arrow on the Fire Danger Rating wheel to see what each warning means and what you should do as a result.

ABOUT FIRE DANGER RATING: In Victoria, the highest Fire Danger Rating is called Code Red; in other states, it is called Catastrophic. The Fire Danger Rating predicts how a fire would behave if one started including how difficult it would be to put out. The rating is your trigger to act, so to stay safe you need to stay aware of the Fire Danger Rating in your district. During the fire season, the Fire Danger Ratings for your district can be found at the CFA website, Bureau of Meteorology and in newspapers and other media, or by contacting the Bushfire Information Line on 1800 240 667. The safest place to be is away from high-risk bushfire areas.

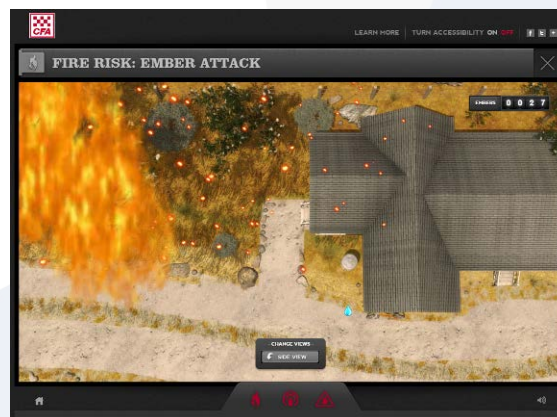


Figure 26: *Game of Fire risk: Ember attack*

Did you know? Regardless of property preparation, most homes will not be able to withstand fires in Code Red conditions.

Ember Attack: Embers are burning twigs, leaves and pieces of debris carried by the wind. Ember attack is the most common way houses catch fire during bushfires.

Instructions: Click on as many embers as you can to put them out before they set fire to vegetation on the ground or to the house. Be quick - the clock is ticking!

ABOUT EMBER ATTACK: Embers are burning twigs, leaves and pieces of bark and debris that are carried by the wind. Ember attack is the most common way houses catch fire during a bushfire. Ember attack occurs when embers are carried by the wind and land on or around a house. It's important to carefully manage the vegetation around a house to reduce the impact of ember attack. More advice and information is available.

Did you know? Ember attack is the most common way houses catch fire during a bushfire. Spot fires can be ignited by embers kilometres ahead of the main fire front.

Radiant Heat: Radiant heat is the heat you feel from a fire. It is one of the biggest killers of people and animals during a bushfire. The best protection from radiant heat is distance.

Instructions: Drag bar to increase or decrease the intensity of the fire. See what happens when you turn the thermal imaging on and off, allowing you to see how radiant heat affects objects.

ABOUT RADIANT HEAT: Radiant heat is the biggest killer of people and animals in a fire. A solid object such as a brick wall and suitable clothing can offer some protection from radiant heat. But they may not save your life. The best protection is distance. Radiant heat can crack or break windows, allowing embers to enter a building. Don't get caught in the open. Radiant heat can kill you. Radiant heat and direct flame contact can be greatly reduced by carefully managing the vegetation around your home.

Did you know? Don't get caught in the open. Radiant heat can kill you.



Figure 27: *Fire Risk game: Radiant heat*

HOW FIRE BEHAVES

Fire Spread & Wind Change: Wind has a significant influence on the speed, direction and intensity of a bushfire. In Victoria, hot, dry winds typically come from the north and northwest and are followed by a southwest wind change. A change in wind direction is one of the most dangerous influences on fire behaviour. This makes wind a very dangerous ingredient in a bushfire.

Instructions: Use the slider to select the wind speed to see how different wind speeds and a change in wind direction affect the spread of a bushfire.

ABOUT FIRE SPREAD & WIND CHANGE: The stronger the wind, the hotter the fire will burn. During a bushfire, wind speed has a significant influence on the:

- Speed at which a fire spreads
- Direction in which a fire travels
- Intensity and size of the fire front
- Likelihood of spot fires occurring

Did you know? Many people who die in bushfires get caught during or after the wind change.

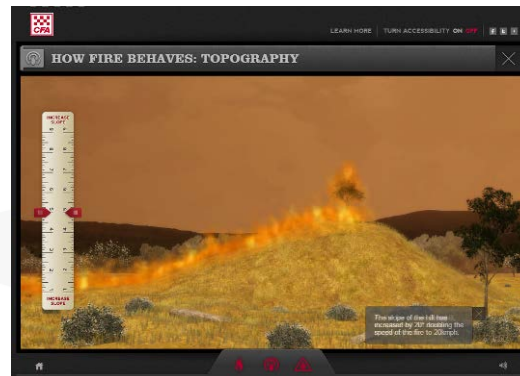


Figure 28: *How fire behaves game: Topography.*

Topography: Unlike you or me a fire travels faster uphill. In general, it doubles in speed with every 10° increase in the slope. By increasing in speed, the fire also increases in intensity, becoming even hotter.

Instructions: Use the ruler to the right of the screen to increase and decrease the slope of the hill and the subsequent speed and intensity of the fire.

ABOUT TOPOGRAPHY: As a general rule, for every 10° slope, a fire will double its speed as it travels uphill. If a fire is travelling at 5kph along flat ground and it hits a 10° slope it will double in speed to 10kph up that hill. So given that fires can travel up to speeds of up to 25kph, what happens when it hits a 20° slope? A 25kph fire becomes a 100kph fire that even a car will struggle to out run. As wind passes over a hill it can create turbulence ahead of the fire front causing the fire to behave erratically.

Did you know? Valleys and gullies can channel and strengthen winds, increasing fire speed and intensity.

FIRE SAFETY

Safety and Awareness: Bushfires are unpredictable and can impact without warning. It is important to have a well-rehearsed Bushfire Survival Plan and to use the Fire Danger Ratings as your trigger to act.

Instructions: Use the Fire Danger Rating wheel to set the conditions for this location.

BUSHFIRE SURVIVAL PLAN: Not everyone thinks clearly in an emergency. A written and well-practised plan will help you remember what needs to be done during a crisis. It also lists the preparations you will need to do to help you become fire ready.

Your plan needs to outline:

- Actions before the bushfire season
- Actions during the bushfire season (the Fire Danger Period)
- Actions leading up to Fire Risk Days
- Your back-up plan
- [Click here to start your bushfire survival plan.](#)

Did you know? In high-risk areas, leaving early is your only safe option on Code Red fire danger days.

WARNINGS: During a bushfire, alerts and warnings are used to tell you the threat level from a fire. These should inform your decisions and be your trigger to leave. For alerts and warnings:

- Visit the CFA website
- Tune into your emergency broadcasters - ABC local radio, commercial radio and designated community radio stations
- Sky News television
- Call the Victorian Bushfire Information Line on 1800 240 667 or via National Relay Service - 1800 555 677

Did you know? Do not rely on an official warning to leave. Bushfires can start quickly and threaten homes and lives within minutes.

PREPARING YOUR PROPERTY: There are some simple things you can do around your home to decrease your bushfire risk. By managing the vegetation around your home, you can create space by reducing fuels and therefore bushfire intensity. This helps to protect your house from direct flame contact and reduces the radiant heat to which your house will be exposed.

- Keep grass short
- Make spaces between plants and trees
- Clean your gutters and rake up leaves

Did you know? It only takes 2 weeks of hot, dry and windy weather to create dangerous fire conditions.

BEFORE YOU LEAVE: There are things you can do around your property before you leave which may help to minimise damage to your house and other structures.

- Close all doors and windows
- Move doormats and outdoor furniture away from the house
- Block the downpipes and partially fill the gutters with water
- Turn off the gas supply

Did you know? In high risk areas leaving early on Code Red fire danger days is your only safe option.

TEACHERS

There are a wide variety of resources targeting teachers

> Secondary schools

> Primary school kids

> **Teachers**

> Fire Safe Kids

> Request a session

> Mobile Education Unit

> Fire Safe Youth

> Casey Safety Village

> Primary School resources

> Secondary School resources

> Advance

Teachers

Teaching Resources

Incorporate Fire Safety as part of your curriculum in your school with the resources below:

Primary



Fire Safe Books



Kids eLearning Game

Secondary



Books & Websites



Interactive Bushfire Website

Make a booking

**Request a
session**

Support

Call 1800 799 203 Monday to
Friday, 8:30am - 5:00pm EST for
any support enquiries



Figure 29: Screen shot of the web page Teachers resources. CFA.

• Fire Safe Kids

Fire Safe Kids is CFA's flagship education program for primary and pre-primary students. It's delivered by volunteer or career firefighters who visit your school with an engaging and interactive presentation.

Each lesson is supported by comprehensive guides and lesson plans for teachers, and plenty of giveaways for students.

What will my students learn?

Primary

Teachers can select from a range of free presentations (each targeted to a particular year level) to help their students become fire smart from the start. Fire Safe Kids lessons cover a range of topics, such as:

- How to identify 'hot spots' or fire hazards around the home
- How to help your family develop a home fire escape plan
- Basic actions for extinguishing clothing fires and treating burn injuries
- The science behind fire according to the fire triangle

- How families and communities get ready for the bushfire season

Each presentation requires one school period and is designed for one class group (about 25-30 students).

Pre-primary

Activities at the pre-primary level aim to help children:

- Understand the need to get out, find a safe place and call for help if there is a fire
- Be familiar with firefighters and their role in the community
- Request a session

Login using your CFA school/ centre email and password to:

- Request your free fire safety session
- Access information about current session requests and past sessions
- Complete post-session survey
- Mobile Education Unit

Fun and education on wheels

CFA's mobile education program gives primary and secondary school students the chance to learn about home fire safety and summer fire safety in a fun and exciting way.

Lessons are delivered on board customised vehicles (Mobile Education Units - MEUs) that visit schools throughout Victoria.

Each one-hour lesson is tailored according to year level and supported by extra materials to help teachers follow up on important fire safety topics back in the classroom.

This is a free service provided year-round by CFA.

Primary Schools

Two types of Mobile Education Units are available:

Home Fire Safety: Open to all year levels from Prep to Grade 6. Through hands-on activities, students will learn about home fire safety.

Bushfire Safety: Open to all year levels from Prep to Grade 6. Through hands-on activities, students will learn about summer fire safety.

Secondary Schools

Bushfire Safety program: Designed to challenge and engage Year 7 and 9 students as they learn about bushfire risk, preparation and survival.

Curriculum links

All MEU lessons are linked to the AusVELS domains of Science, Humanities, History, Geography, Civics and Citizenship. At the end of the session teachers will receive a free CD-ROM with a range of follow up activities for the classroom.

- Fire Safe Youth

CFA firefighter-led, classroom fire safety presentations.

CFA's Fire Safe Youth program sees local CFA firefighters visit your class to talk about bushfire and home fire safety. This is a free program available to secondary schools across Victoria.



Figure 30: School field trip of CFA program.

What do students learn?

The range of topics include:

- Victoria's bushfire history
- How climate, weather, vegetation and topography affect fire behaviour
- The science behind radiant heat and ember attack
- Fire Danger Ratings and warnings: what they mean and how to respond
- Total Fire Bans: what you can and can't do
- Prepare, Act, Survive: what you can do to stay safe in summer
- How to identify and address everyday fire hazards inside the home
- How working smoke alarms and home fire escape plans save lives

Please allow one period for bushfire safety and one period for home fire safety. You'll also receive follow-up teaching and learning materials to support further study in the classroom.

- Casey Safety Village

Fire safety education at CFA's Learning centre. Community Education.

Facilities and features

- Accommodates up to 60 students
 - Dual road and fire safety education
 - Interactive multimedia facilities
 - Strong links to the Australian Victorian Essential Learning Standards (AusVELS)
- Primary School resources

Fire Safe Books

These manuals are designed to assist teachers in preparing a fire safety program for primary school students. The resource manuals are intended to be ideas manuals, not an entire program in itself.

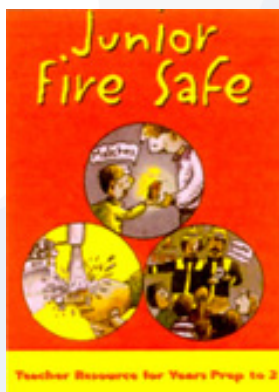


Figure 31: *Junior Fire Safe: For years Prep to 2*

Ideally the units in these resources are used to complement other CFA programs such as Fire Safe Kids and the Mobile Education Unit by providing additional opportunities for children to learn more about fire safety.

The manual is organised into four broad concepts or areas of study:

- Home Fire Safety
- Personal Safety
- Bushfire Safety
- Fire Safety in the Community

Fire Safe Kids e-Learning Game

Captain Koala, 1st Lieutenant James and Fire Officer Sophie will take your students through a series of bushfire safety education, through a variety of interactive games and activities.

The three areas they will learn about are:

- Bushfire Awareness
- Bushfire Prevention
- Bushfire Planning

The students will learn about each topic. A scenario will be shown & the students will have the opportunity to use interactive tools to improve each scenario in order to become bushfire safe. Questionnaires and worksheets are available to answer and print out for further classroom activities.

At the conclusion, they will be congratulated by CK with a special message for helping their family & community to be prepare for the bushfire season.

Further Resources

- More information can be found in other areas of this site including [About CFA](#).
- The ABC has an award winning website providing an extensive insight into the devastating fires of January 13, 1939 otherwise known as - [Black Friday](#).



Figure 32: Image of the Movie from ABC website page. 2003 AUSTRALIAN BROADCASTING CORPORATION, FILM VICTORIA & MOIRA FAHY. Produced with the assistance of the ABC - Film Victoria Multimedia Production Accord.

- Secondary School resources

Teaching and learning resources for secondary schools.

- Publications
- Websites
- Fire Safety VCAL Units
- Online teacher professional development module
- Essays and DVDs

6. Conclusions:

The concept of communication shall be understood from several perspectives. This report is focused on involve communication with education as the capacity to transmit and interconnect the target audience with the related knowledge through activities helped by the trainer or educator.

Communication with children is one of the key factors to enhance the resilience of the citizens to wildfires in interface areas from the Mediterranean region.

To achieve this purpose, it is necessary to choose a teaching program with concrete objectives developed through the suitable concepts.

Among the different analysed programs, the Mefitu project seems to be the most suitable, although some adaptations and extensions of new materials are being analysed at the moment of submitting this report.

Why Mefitu? In the Mediterranean region exists a vision of fire as a destructive element to be removed, the existing programs and children materials follow this approach, except Mefitu, which focus on a vision of fire as an ecological factor, based on adapting landscapes and citizens to wildfire. The Mefitu project matches up with the idea to increase the forest and children resilience, which is the main goal of eFIRECOM project. Therefore, it can be adapted to other regions including ideas and visions from USA, Australia and Canada, countries with a huge wildfire history. In these cases the perception of risk is shaped by historical and social events, the reaction to the hazards and disasters might be very appropriate to the event happening. This might reduce the possible harms.

In addition, Australia and USA programs are good examples because the knowledge are explicitly linked to the Australian and USA Primary and/or Secondary school curriculums. Fact that helps to reducing risk and building student and teacher understanding and resilience in times of disaster.

Related to the differences between children who live in peri-urban areas where fires are a recent phenomenon, and in contexts where fire is still used as an environmental management tool, several approaches to communicate children, young people and their teachers the fire risk and the fire prevention.

Therefore in this project, two teaching programs for teachers, a storybook and song for primary school pupils and videos for young people are performed to improve and complete the Mefitu model using innovative existing initiatives.

Interesting findings will be used to perform these new materials arising from USA, Canada and Australian programs.

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- Australian Government. Disaster Resilience Education from schools. <https://schools.aemi.edu.au/>
- Country Fire Authority CFA. Primary schools kids, Secondary schools, Teachers. <http://www.cfa.vic.gov.au/kids-schools/primary-school-kids/>
- Black Friday web site. <http://www.abc.net.au/blackfriday/home/default.htm>

8. Annexe

EDUCATIONAL TOOLS FOR RAISING AWARENESS OF YOUNG PEOPLE IN FRANCE

OUTILS PEDAGOGIQUES DE SENSIBILISATION DU JEUNE PUBLIC

• Livres

Descriptif	Détenteur
<p><i>Les forêts en Languedoc-Roussillon : comprendre pour transmettre</i> - GRAINE Languedoc-Roussillon, 1999. - 83 p.</p> <p>Ce guide sur les forêts du Languedoc-Roussillon est destiné aux enseignants, animateurs et formateurs. Il constitue un outil pédagogique global pour monter son projet d'éducation à la forêt. L'ouvrage s'articule autour de trois parties principales. La première tente de corriger certaines idées reçues pouvant nuire à la juste compréhension de l'état de la forêt et traite également des enjeux de société liés à son devenir. La seconde a pour objectif de fournir une base de connaissances sur les différents écosystèmes forestiers méditerranéens et de leurs usages. La troisième apporte divers outils pédagogiques pour mettre en place un projet d'éducation à l'environnement avec un chapitre consacré à la description de projets déjà réalisés par des établissements scolaires. Cet ouvrage doit permettre d'acquérir quelques clés pour aborder l'environnement forestier sous les angles scientifique, économique et social.</p>	GRAINE LR
<p><i>Les feux de forêt en Languedoc-Roussillon : guide pédagogique</i> / GRAINE Languedoc-Roussillon, 15 p.</p> <p>Ce document a pour objectif de sensibiliser jeunes et éducateurs au risque "feux de forêt", risque qui s'accroît en raison des phénomènes récents de sécheresse et de la progression démographique à proximité des milieux secs. Il donne des pistes pédagogiques pour mieux connaître les milieux naturels qui composent la forêt méditerranéenne ainsi que l'approche du phénomène des feux de forêt et les moyens d'y remédier.</p>	GRAINE LR
<p><i>Risques majeurs et espace rural</i>. Scérén, 2003. - 23 p.. - (Aléas et enjeux. Eduquer pour prévenir les risques majeurs; 06).</p> <p>Etude de cas sur les feux en région méditerranéenne. Séquence pédagogique collège 5^e.</p>	GRAINE LR

• Cédéroms

Descriptif	Détenteur
<p>BOISSEL Eric, BRUNEAU Maguy, CHANDIOUX Olivier. <i>Abracadaboïs</i>. Institut pour la forêt méditerranéenne</p> <p>Ce cédérom propose de faire découvrir le bois et la forêt aux enfants, à travers ses différents aspects et fonctions : depuis l'origine des temps jusqu'à demain, de la naissance de l'arbre jusqu'à la fabrication d'objets. Il comprend 30 jeux, plus de 200 photos, des vidéos sur les métiers de la forêt, 23 arbres à identifier...</p>	GRAINE LR

• DVD

Descriptif	Détenteur
<p>Bazin, Luc . <i>Vivre avec le risque incendie : une culture partagée en forêt méditerranéenne</i>. - Département de l'Hérault, 2007.</p> <p>DVD interactif et livret pédagogique</p> <p>Les régions méditerranéennes sont soumises à de nombreux risques naturels majeurs, parmi lesquels le risque de feu de forêt. La compréhension et la prévention de ce risque passent par l'explication des enjeux et des aléas, les</p> <p>Bazin, Luc . <i>Vivre avec le risque incendie : une culture partagée en forêt méditerranéenne</i>. - Département de l'Hérault, 2007.</p> <p>INSTITUT POUR LA FORET MEDITERRANEENNE. DVD interactif, (sortie début 2009 ?)</p> <p>Support pédagogique à destination des enseignants et animateurs. Eléments sur le milieu méditerranéen et le. Différents parcours possibles : enseignant ou élèves.</p>	<p>CG 34 GRAINE LR</p> <p>Institut pour la Forêt méditerranéenne</p>

• Expositions

Descriptif	Détenteur
<p>Exposition sur la faune et la flore de la forêt méditerranéenne et les feux de forêt 15 panneaux - 2008</p> <p>OFFICE NATIONAL DES FORETS. <i>L'arbre mort source de vie</i>, 2001.</p> <p>Cette exposition traite du cycle de la vie de l'arbre, de sa naissance à sa mort. L'arbre meurt : des champignons et des plantes s'installent, des animaux viennent se nourrir, d'autres se loger.</p> <p>Note de contenu : Cette exposition comprend 3 panneaux :</p> <ul style="list-style-type: none"> - Le cycle de la vie de l'arbre - L'arbre mort, source de vie - La seconde vie de l'arbre 	<p>Assoc. Millefeuille (34)</p> <p>GRAINE LR</p>

• Cassettes VHS, DVD

Descriptif	Détenteur
<p>DRAF Languedoc-Roussillon, SEDRE, Préfecture de région Languedoc-Roussillon, FABRE Alain. <i>La forêt, c'est la vie</i>. Vidéo contact Montpellier, 1990. 19 min 58</p> <p>Sans la forêt plus d'oxygène, plus de vie, sans le bois plus de chauffage ni de livres... pourtant l'homme est l'un des pires ennemis de la forêt.</p>	<p>GRAINE LR</p>

• Support pédagogique en ligne

Descriptif	Détenteur
<p><i>Syko à la découverte de la forêt méditerranéenne</i> http://www.risque-incendie.com/syco/index.php à partir de http://www.prevention-incendie66.cm/ et de www.cg66.fr Support pédagogique sur la forêt méditerranéenne à destination des enseignants et animateurs pour les enfants du primaire</p> <ul style="list-style-type: none"> - Fiches sur les arbres et les arbustes de la forêt - Diaporama commenté - Photothèque - Clé de détermination des espèces végétales - Index <p>Exemples issus du département Possibilité d'un ajout de module complémentaire</p>	Assoc. IF

• Ecomusée

Descriptif	Détenteur
<p>Ecomusée de la forêt. Fonds documentaire d'intérêt Visite de classes de primaire et secondaires de la région PACA</p>	<p>Institut pour la forêt méditerranéenne (Valabre – 13)</p>

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