



## Fire Prevention and Safety



Visit the American Red Cross Web site  
at [www.redcross.org/disaster/masters](http://www.redcross.org/disaster/masters)

# Glossary

**access:** the ability to reach a desired location or object

**ash:** a white or gray residue remaining after complete combustion

**backdraft:** a situation that occurs when a fire is ventilated by the opening of a door, window or hole in a room making the entire room or structure burst into violent flames

**body language:** gestures, facial expressions and unconscious body movements that communicate an individual's feelings or state of mind

**candle:** wax or tallow with a wick through its center that emits light when burned

**Celsius:** a temperature scale in which water freezes at 0° and boils at 100°

**ceremonial fires:** cultural uses of fire, in particular for religious or celebratory occasions

**charcoal grill:** an outdoor cooking device fueled by charcoal

**chemical reaction:** a process in which physical and chemical properties of a substance change as a new substance with different properties forms

**combustion:** the burning of a fuel; the process in which fuels combined with oxygen at a high temperature release heat and light

**community resources:** groups, organizations and agencies that provide assistance and information to individuals, families, schools, businesses and the public in a designated area

**conduction:** the transmission of heat through a substance, or from one substance to another, by the direct contact of molecules

**Consumer Product Safety Commission:** the U.S. government agency that sets guidelines for the flammability of items and monitors product safety issues

**convection:** the transfer of heat through a liquid or gas by the movement of the molecules

**decorative fires:** fires burned for aesthetic enjoyment



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**density:** mass per unit volume of a substance

**emotions:** feelings

**endothermic:** created or characterized by the absorption of heat

**evacuation drill:** a repetitive practice of leaving an unsafe place for a safer place in case of an emergency

**evoke:** to elicit, to call forth

**exit:** a way out

**exothermic:** created or characterized by the release of heat

**Fahrenheit:** a temperature scale in which water freezes at 32° and boils at 212°

**fire:** a chemical reaction resulting in heat, light and flame; the process of combustion in which fuel or other material is ignited and combined with oxygen, giving off light, heat and flame

**fire alarm:** a loud bell or siren warning of fire. When the fire alarm is activated, you should exit the building.

**fire codes:** a set of standards adopted by local government authorities and enforced by the local fire department and fire marshal to protect public health and safety in the event of a fire, with specific reference to notification (smoke alarms), fire escapes and exits

**fire suppression:** removing danger from and extinguishing a fire

**flame retardant:** a chemical that is applied to household products to increase their ignition temperatures, thereby decreasing the chance that they will catch fire

**flammable:** able to burn; usually refers to liquids, such as gasoline

**flashover:** the point during a fire when the heat energy in a room suddenly ignites everything in the room

**flash point:** the lowest temperature at which a substance emits sufficient flammable vapor to ignite when a flame is applied

**floor plan:** a drawing of every room in a building that shows each wall and exit, including window and doors

**fuel:** material used to supply heat or power

**gas fireplace:** an indoor structure that simulates a wood-burning fireplace but is fueled by gas



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**gas furnace:** an enclosed structure fueled by gas and designed to heat a building with forced air pumped through ductwork

**gas grill:** an outdoor cooking device fueled by gas

**hazard:** danger, jeopardy; something that can cause bodily injury or damage to property

**heat:** the transfer of energy from one system to another resulting in a difference in temperature

**homeowner's insurance:** insurance that protects the policyholder in case his or her home is damaged or destroyed, including damage or destruction by fire. Most homeowner's insurance policies also cover the contents of the home.

**hypoxia:** a condition where the tissues of the body receive insufficient oxygen

**ignition temperature:** the minimum temperature to which a fuel must be heated for combustion to occur

**ionization chamber:** a device for detecting and measuring the amount of ionizing radiation, and found in many smoke alarms

**juvenile fire setters:** young people who start fires out of curiosity or to express anger or discontent

**Kelvin:** a temperature scale measured from absolute zero ( $-273.15^{\circ}\text{C}$ )

**kerosene:** a thin oil distilled from petroleum or shale oil and used as a fuel or illuminant

**kinetic energy:** the energy a body or system possesses with respect to its motion

**LPG (liquid propane gas):** a mixture of gases, primarily propane and butane and stored in a liquid state

**melting point:** the temperature at which a substance changes from a solid to a liquid

**molecular motion:** the movement of molecules in a substance

**oil furnace:** an enclosed structure fueled by oil and designed to heat a building with forced air pumped through ductwork

**oxidation:** the combining of oxygen with a substance

**O<sub>2</sub> (oxygen):** a colorless, odorless, gaseous element that makes up 21 percent of the atmosphere and is essential to combustion



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**peer pressure:** overt and covert pressure exerted on a person by others in the same age group to act in a manner that conforms to group expectations or desires

**photoelectric:** a use of electrical effects due to the interaction between light (radiation) and matter. One type of smoke alarm uses a photoelectric bulb. When smoke enters the bulb, light from the beam is reflected from the smoke particles into a photocell and the alarm is triggered.

**physical change:** a change that affects the size, shape or color of a substance but not its composition

**practical fires:** fires burned for human necessities, such as for cooking and heating

**procedures:** rules; ways of acting in a specific situation; a series of steps to take to achieve an objective

**product:** a substance that is produced by a chemical reaction

**pyrolysis:** the emission of flammable gases caused by the radiant heat of a fire increasing the temperature of nearby combustibles

**radiation:** the transfer of heat through space

**reactant:** a substance in a chemical reaction

**renter's insurance:** insurance that provides a policyholder who rents an apartment or other type of home funds for personal possessions damaged or destroyed by fire or other hazards. It does not cover the actual dwelling.

**respect:** to look upon or treat with regard

**smoke:** a substance that escapes from something burning, and made visible by minute particles of suspended carbon

**smoke alarm:** a device designed to sound an alarm when smoke is present

**sprinkler system:** a fire-suppression system installed in many public buildings and some homes that sprays water to extinguish fire; activated by heat within a zone

**support system:** individuals, organizations and institutions available for assistance and comfort, particularly during a crisis

**temperature:** the property of a body determining the rate at which heat will be transferred to it or from it; the measure of how warm or cool an object is in reference to a standard value



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**thermal balance:** the uniform distribution of temperatures throughout a closed compartment that is on fire. The energy entering a fire must equal the energy released.

**thermal collapse:** final phase of a fire

**tragic:** disastrous; very sad, especially involving grief or death

**trauma:** a wound, hurt or injury to the body or mind

**vacuum:** a space devoid of molecules and atoms

**ventilation:** an opening for air to escape; increased circulation of air in a room

**wood-burning fireplace:** a structure designed for burning wood indoors

**wood stove:** an iron cook stove that is fueled by wood

**worry stone:** a smooth, polished oval stone held between the index finger and thumb. It is said to relieve stress and anxiety when rubbed.



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