Fuel Sources for Cooking and Heating

Efficiency

- Don't waste fuel or heat. Use for heating and cooking simultaneously when possible.
- Indian saying: "White man build big fire, stay cold. Indian build small fire, stay warm.
- Don't be wasteful. Use only the amount of heat necessary.
- Learn to use a pressure cooker to reduce cooking time.
- Soak grains, legumes, and pasta before cooking.
- A low boil and a vigorous boil have the same temperature.
- If you have power, use microwave where possible/appropriate.
- Use mirrors with candles and lanterns to increase light in needed area.

Lighting Fires

- Store lighters instead of matches. They last longer, and work after getting wet.
- See Boy Scout Handbook and Fieldbook for methods of building and lighting fires.
- Build your fire before you light it.
- Gather and Store kindling as part of your fuel supply.

O_2 CO_2 CO

- O2 – Fire needs Oxygen – So do you! If you use fire, have ventilation for a fresh air supply.
- CO2 – All normal fires produce Carbon Dioxide. OK as long as you have plenty of O_2.
- CO – Carbon Monoxide is a killer. Blood has greater affinity for CO than O_2. Keep concentration very low – use only outside.

Fuel Sources		
Fuel	**Notes**	**Warnings**
Propane	Propane stove, BBQ. Use in well ventilated areas. Buy adaptors & hoses to use big bottles.	Some CO. Explosive - Makes great fuel-air mixture bomb.
Gasoline/Coleman Fuel	Coleman stoves, duel fuel stoves. Most cities only allow storage of 20-25 gallons.	High concentrations of CO. Use only outside. Fumes toxic and explosive.
Kerosene	Heaters and stoves. Stores for years. High density fuel. Not explosive. Highly recommended.	Some people don't like smell.
Coal	Dense fuel. Can bury in the ground until needed. Need fireplace or stove.	Burns hot; stove must be lined with brick.
Charcoal	Need charcoal burner or outdoor fireplace. Needs a starter fire.	High concentrations of CO. Use only outside.
Paraffin/wax	Needs wick to burn.	Produces soot.
Wood	Need fireplace or wood stove	
Newspaper	Roll up into logs. Works best when used with wood.	Doesn't start well by itself.
Solar	Many designs for stoves and ovens. Also use solar panels for electricity to run microwave oven. Use hot inside of car to dry fruit. See solarcooking.org	Doesn't work on overcast days.
Electricity	With batteries and inverter, only use microwave.	Requires high technology.
Vegetable Oil, margarine, grease	Needs wick to burn. Oil can be made into diesel/kerosene – Search internet: "biodiesel"	If oil goes rancid it will stink. Grease smells like its source.
Garbage	Burn only paper & wood.	Some materials produce toxic fumes.
Natural Gas	Use it if it's available.	Requires infrastructure to deliver.
Alcohol	Burns hot, clean. Needs wick or stove. Stores easily. Multiple uses. Can be made with fermenting fruit and vegetables, and a still. See journeytoforever.org	Try to get higher concentrations (less water). Evaporates quickly. Methanol is poisonous; Ethanol isn't (as much).
Methane Gas	Made from decomposing organic material. Need to build a system to capture and store it.	Explosive like propane. Stinks.

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