Make your home energy efficient

Most of us live in houses which were built at a time when nobody worried about the cost and supply of oil, gas or electricity. Today, we are learning from our soaring heating bills that our homes are ill-protected against heat loss. But by adding more insulation where there is none or too little and by installing weatherstripping and storm windows, we can cut heat loss, use less fuel and save money.

Insulation controls heat loss through walls, floors and ceilings. Insulation comes in various widths and thicknesses and may have a vapor barrier on one side. The purpose of the vapor barrier is to prevent the passage of water vapor from heated areas into the space between the walls where it could damage the insulation. The vapor barrier should always face the warmer side of a wall, floor or ceiling.

When you go to a lumber yard or home center to buy insulation, don't judge it by thickness alone. Look for the letter "R" followed by a number printed on the insulation. "R" stands for resistence to heat flow. For walls you need R-11 (about 4 inches), for ceilings and floors you need R-19 (about 6 inches). If you don't see R numbers printed on the vapor barrier, don't buy the insulation. Bear in mind that eight-inch insulation marked R-19 has no greater insulation value than six inches marked with the same R number.

INSULATING IS really simple. All you need is the proper insulation and a good stapler or hammer tacker.

Press the insulation in between the studs and staple the flange on one side to the front of the adjacent stud; repeat with the flange on the other side. The entire cavity between studs should be filled with insulation from top to bottom without any gaps or breaks. The staples should be driven every six inches.

If you use insulation with an aluminum foil vapor barrier, the flanges on both sides must be stapled to the sides of the studs. If you use insulation without a vapor barrier, place it between the studs in the usual way, then cover the entire wall with sheets of clear polyethelene plastic as a vapor barrier. If possible, fold the sheet so you are stapling through a double thickness. Staples should be inserted every 8 inches along the front end of each stud. It is very important to insulate attic floors, cellar ceilings and the walls of unfinished rooms.