

A New Hearth – Lighting Evaluation

Kids! Turn the lights off! But why, they wonder.

The New Hearth Project's goal is to create new healthy, energy efficient, green homes where we know we are truly in the comfort of home in every aspect. This is for new and existing homes. There are many steps homeowners can take to improve their home's health, reduce energy consumption, reduce their carbon footprint on the Earth and provide a lasting legacy in our community.

Lighting accounts for 20% to 25% of all electricity consumed in the United States. An average household dedicates 5% to 10% of its energy budget to lighting; the average commercial establishment, 20% to 30%, according to the Clean Cool Planet project. In a typical residential or commercial lighting installation, 50% or more of the energy is wasted by obsolete equipment, inadequate maintenance, or inefficient use.

According to the Department of Energy and the EPA, the national average output rate, hovers around 1.341 pounds of CO₂ per kilowatt hour generated. Take a look at your electric bill. It is likely that you are sending thousands of pounds of CO₂ into the atmosphere because of your use of electricity. Reducing your lighting load will dramatically influence this output.

Through this lighting evaluation you can engage your whole family in reducing your energy consumption. The first step in this process is gaining an understanding of what you are using.

It is fun and easy to do.

This lighting evaluation is a project of Holt Design and the Andover Townsman.

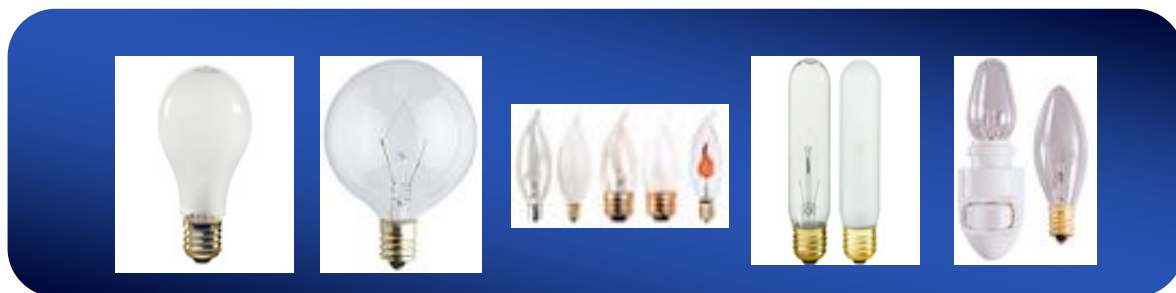
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STEP 1 - Instructions

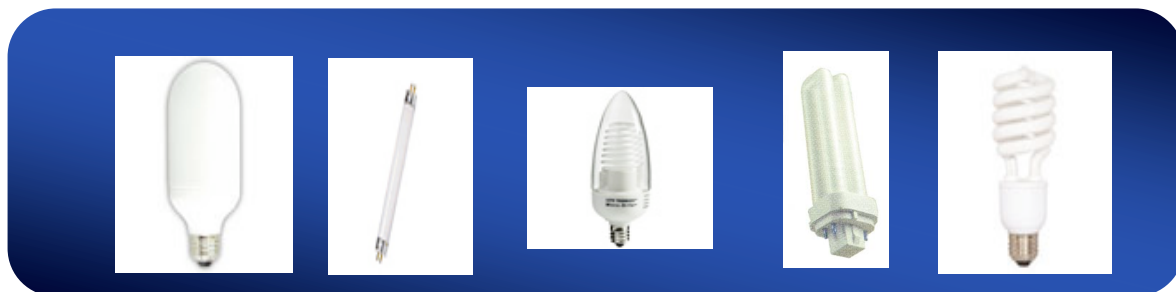
TAKE A COUNT - Use the **LIGHTING COUNT SHEET** and record how many lights you use room by room.

- Write the name of the room in the top
- The left column of the sheet provides a list of the types of lights in use. (example: a recessed ceiling light or typical ceiling light, a table lamp or a cabinet lamp). You can add types if needed.
- For each type of light write
 - a. Write the number of lights in the room
 - b. The wattage or size of bulb in use
 - c. Write the type of bulb in use, which could be

Incandescent – most common screw in light bulb



Florescent – either a tube or a new compact version



Low voltage – small light such as an under cabinet light, track light or out door light



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Lights? Which is which?

It's what's inside that counts!

Incandescent – a filament that heats up to make light



HINTS

You can see the filaments
- like small wires –
or hear them when you shake
the bulb ever so gently.
Hot when in use.
BE CAREFUL!

Florescent-gas in a tube that lights up



HINTS

One continuous tube either
inside an outer shell or out
there all by itself. Cool when
in use. Takes a few seconds
to brighten up to full light.

Low voltage – a bulb that uses a fraction of energy – 12 volts instead of 120.



HINTS

Tiny bulbs with small wires –
several lights make up
the overall light.
Not very bright
by themselves.

LED –light emitting diode

Not in widespread use in homes but used in commercial application