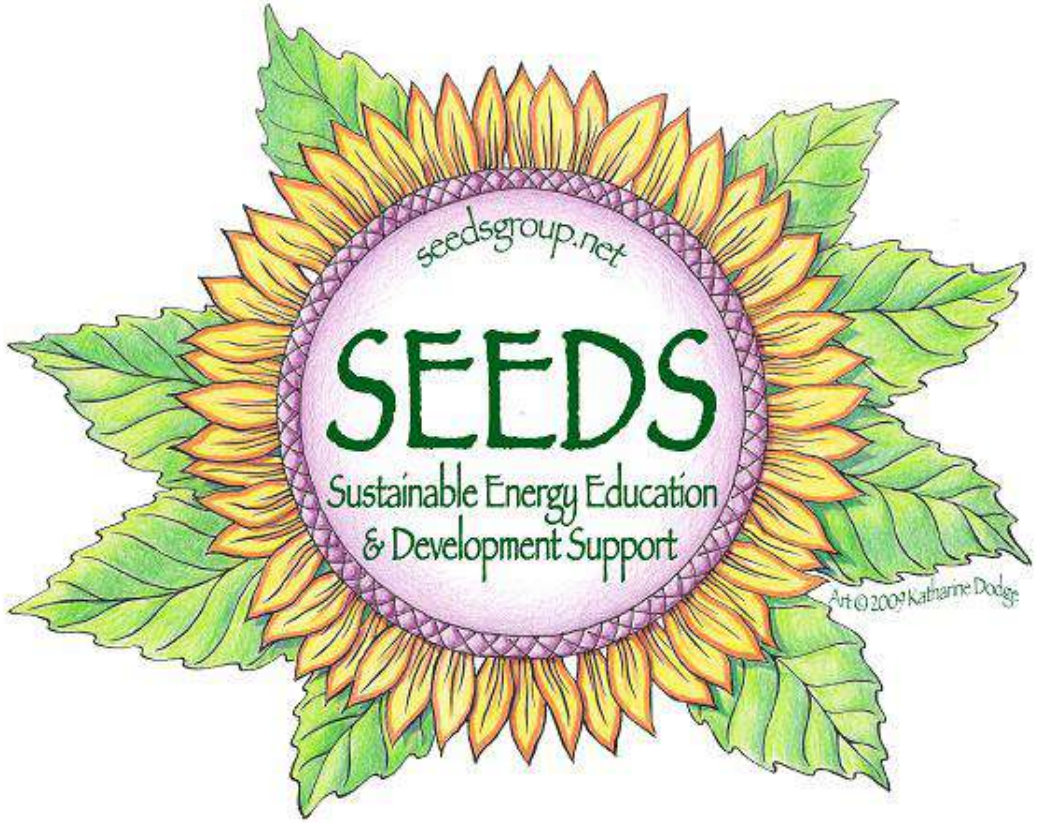


www.seedsgroup.net

Promoting energy efficiency, renewable energy, and sustainable living in our communities

SEEDS

Step-by-Step Guide To Energy Efficiency

A Quick and Easy way to:

- *Save you $$*
- *Make your home more comfortable*
- *Make your home more energy efficient*



You are investigating:

- Air management
- Moisture management
- Ventilation
- Insulation
- Water use
- Energy use



Key Points:



- Conditioned spaces are those parts of your home that are heated or cooled, the house's "Envelope."
- Unconditioned spaces are those areas that do not have heating or cooling--the parts that are not part of the living space such as most attics, garages, and many basements.



- If you got a broken window, you would fix it right away. Several tiny holes in your house can add up to be as impactful as a broken window. It pays to patch the tiny holes.

Please be aware of hazards such as:

- Lead paint on painted furniture or walls--banned since 1978 (ingestion, inhalation of lead dust)
- Asbestos insulation on some old water pipes and in some old siding (inhaling fibers).
- Radon (odorless radioactive gas).
- Fiberglass insulation (inhaling fibers, irritation of skin).
- Compact Fluorescent lightbulbs(CFLs): contain mercury—recycle please.

Lead test and radon test kits are available in hardware stores.

The most reliable radon testers are long and short-range monitors. Tip: share one with your neighbors to save money.

Any combustion heating system needs adequate ventilation. For your safety, we advise having your system evaluated by an HVAC professional before tightening your house envelope. This includes gas cook stoves as well as wood stoves, kerosene heaters, and oil and gas furnaces.

Steps to take:

1. Examine the outside of the home
2. Examine the Basement
3. Examine the Attic
4. Examine the Conditioned space from top down

1

Examine the outside of the home

Why this is important:



Holes and cracks can let air, water, and varmints through.



Good drainage & ventilation can help avoid moisture and mold issues.



Good ventilation for the attic helps to keep the attic and roof cool, giving the roof a longer life, and avoiding ice dams.

What you are looking for on the outside



- Are you using LED lights which are the most efficient kind?
- Is your roof in good condition?
- Do you see functioning vents under the eaves (soffit vents) for attic ventilation? If you notice ice dams in winter, venting needs addressing.
- Do you have ridge cap and/or peak vents for good ventilation?
- Is water drained away from the foundation via good grading of land, good downspouts and downspout extensions?
- Cracks or gaps in windows, doors, siding, utility entrances, or foundation can be foamed or caulked. (Use only minimal-expanding foam on windows and doors.)
- Do you see water damage, mold, or rot?
- Pull dirt/leaf build-up away from siding.
- Vegetation:
  - If it is up against the house, it can cause moisture & mold on side of house
  - Do you have good ground cover vegetation for water retention and cooling of house in summer?

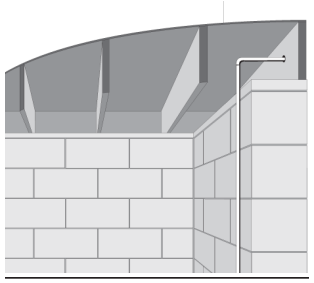
2

Examine the Basement

Why this is important:



Cracks, gaps, and holes can let moisture, air, and varmints into your home.



Poorly installed or lack of air sealing and insulation on walls, ceiling, and around air ducts can make your house colder.



Lack of insulation on hot water pipes can mean higher energy costs.



It is good to inspect your water heater and other utilities for proper function.



- Are walls and rim joists caulked and insulated well?
- Efficient light bulbs?
- Are there functioning smoke/carbon monoxide detectors?
- Cracks or holes in walls or floor? Caulk or foam.
- Signs of moisture and mold? Check for sources.
- Windows in good condition and sealed well?
- If there is ductwork, is it well sealed and insulated?
- If there are water pipes, are the cold water pipes insulated to cut condensation, and hot water pipes insulated to preserve heat?
- Are appliances efficient?
- Gas water heaters should be properly vented.



- Is the ceiling insulated well? The vapor barrier (such as the paper on fiberglass batts) should face the conditioned (upstairs) space.
- Are the rim joists sealed and insulated?
- Efficient light bulbs?
- Are there functioning smoke/carbon monoxide detectors?
- Cracks or holes in walls or floor? (Caulk or foam.)
- Signs of moisture and mold? (Find sources.)
- Basement access properly sealed and insulated? The door should be insulated and have weather-stripping.
- Windows in good condition and sealed well?
- Ductwork well sealed and insulated?
- Cold water pipes insulated to cut condensation?
- Hot water pipes insulated to preserve heat?
- Water heater efficient and well-insulated? (Gas water heaters properly vented?)

3

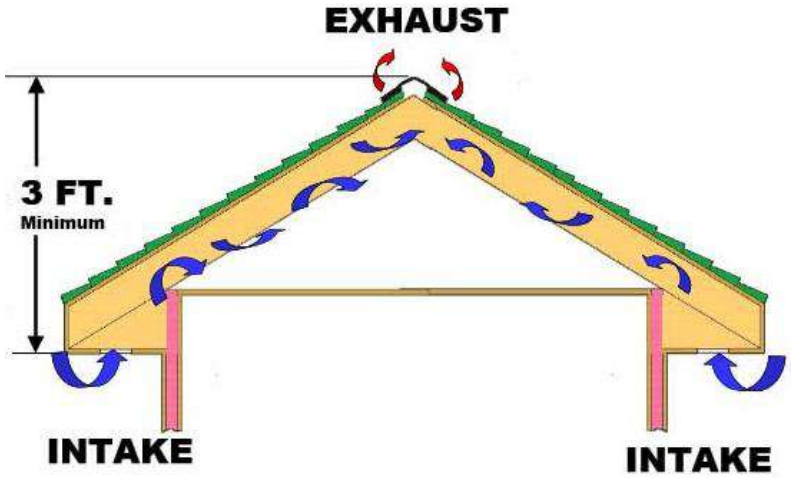
Examine the Attic

Why this is important:



Courtesy of https://www.drenergysaverjerseyshore.com/

A well-insulated attic helps keep the rest of the house warm. *(Note the baffles preventing insulation from blocking the soffit vents.)*



A well-ventilated attic keeps the attic and the roof cool, adding to the roof's lifespan and preventing ice dams in winter.



What to look for in the Attic

- Are light bulbs efficient?
- Are smoke and carbon monoxide detectors functioning?
- If conditioned (part of the living space), are roof and knee walls well insulated? Are the joists behind the knee walls well –insulated with baffles to keep soffit vents open?
- If unconditioned, possible air breaches from home interior:
  - Recessed lights
  - Gaps in interior wall studs
  - Chimney area
- If unconditioned, is there adequate insulation covering joists? If batts, make sure they are installed in layers in opposite directions covering joists.
- Soffit vents, eave vents, ridge vent functioning?
  - Are there baffles to keep soffits open for air circulation?
  - Is there an appropriate vapor barrier?
- Signs of moisture (mold, ceiling stains, wet insulation, rot)?
  - Look for sources: bathroom vent not vented to the outside, leaky roof

4

Examine the Conditioned space from top down

Why this is important:



Stopping drafts, leaks, and moisture problems will save you energy and money and make your home more comfortable.



Making sure you have efficient light bulbs and appliances will save you money.



Making sure you have functioning carbon monoxide and smoke detectors will keep you safer.



What you are looking for in the conditioned space:

- Functioning carbon monoxide and smoke detectors?
- Signs of moisture such as mold and water staining.
- Air leakage from wall sockets and switches: (You can add gaskets).
- Air leakage around ceiling lights? (add caulk)
- Windows: single pane or more efficient? Tight? Signs of condensation, rot? Latching windows can help stop air leakage.
- Doors to exterior or unconditioned spaces:
  - Are they thermal doors?
  - Check condition of weather stripping, door sweeps.
  - Need to adjust strike plate to make seals tight?
- Are appliances and lights efficient?
- Are electronics really turned off when not in use?
- Are toilets and shower heads low flow? Aerators can be added. Any dripping faucets?
- Is dryer vent clean, and does it close well when not in use?
- Does bathroom vent to the outside to avoid moisture build-up?

Do you need more help?

Visit our Efficiency Page on our website: Click here

Download our handy checklist: Click here

You can talk to our assessment coaches by:

- Calling us at: 570-245-1256
- Signing up for an appointment on our website: Click here

You can find a list of government programs and resources here: Click here

Please Note:

A SEEDS energy assessment is not a building inspection. ***It is for educational and informational purposes only.*** It is limited to its intended purpose: to help determine the areas of energy loss in the building. Assessments are performed by experienced and trained SEEDS volunteers and Interns, *but we are NOT certified energy auditors.* The assessment is not a warranty or guarantee of any of the building improvements we recommend.

Thank you for using our assessment guide!