



Is It Drafty in Here?

How do the “holes” in our home impact our ability to keep it warm or cool?

1. Read through the entire procedure, and then record a prediction about how the results of these three experiments will be different. Use the record sheet provided.
2. Plug the light bulb into the power strip and turn the strip on to warm the “house” up to between 95-100°F.
3. Unplug the bulb from the strip. Watch the thermometer and record the highest temperature (starting temp.) once it stops going up.
4. Start the timer and record the temperature every minute for 3 minutes. Use the record sheet provided.
5. Repeat steps 2 & 3.
6. Turn on the fan to **low** and repeat step 4.
7. Shut off the fan. Repeat steps 2 & 3.
8. Use the “wind-resistant” materials at the station to block the leaks in the front of the house and it’s roofline (see photo at station), then repeat step 6.
9. How close was your prediction? What does this data tell you about how leaks affect the temperature inside our homes?
10. Where do you think there are leaks in your home? How could you find these leaks? How could they be fixed?

Our homes are not airtight; they leak. Air leakage and improper insulation waste about 20-40% of the energy we use to heat or cool our homes. A comfortable and energy efficient home balances air sealing, insulation, moisture control, and ventilation. An easy and inexpensive way to improve the energy efficiency of our homes is to find & seal holes and cracks with something like caulk or weather stripping. How can we find these leaks?

The U.S. Department of Energy recommends looking here:

- Where different materials meet, like brick and wood, or where the foundation meets the walls
- Door & window frames
- Where electrical or gas service enters the home
- Cable TV & phone lines
- Outdoor water faucets
- Dryer vents
- Other external vents & fans
- Air conditioners

Visit the *Draft Finder* station, and build your own tool for finding drafts, or pick up a set of the directions and take them home with you. Then you can go on a hunt for drafts and be one step closer to a more energy efficient home!

Please turn card back over when finished