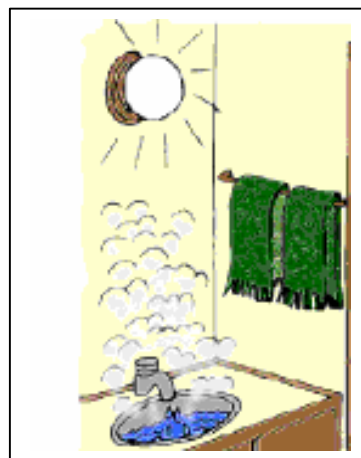




Home Energy Audit

for Kids!



Kids!
It's Time To Give Your Home
its
Annual Energy Check Up!



Did you know your home contains energy devices that do these things for you?

They create light, hot, cold, and sound.

They also make things move.

AND

There are some places in your home where
Hot Air and Cold Air ESCAPE.

There are items or places in your home that use *too* much energy.
THESE are the **ENERGY WASTERS**.

There are some things in your home that help save and conserve energy.
THESE are the **ENERGY SAVERS**.

We need your help. You have just been appointed **Energy Detective** for your home.

The Energy Detective's job is to *find* the
ENERGY SAVERS and the ENERGY WASTERS
Where do you find them?

Start with a **Room-by-Room search** of your house - **an Energy Audit**.

Use the pictures on the next pages to help find Energy Savers and Energy Wasters. They came from this website: <http://www.smud.org/education/Edog/index.htm>. (You can do this online if you log on to the website.)

Check your home for other Energy Savers and Wasters. If you find more, draw them on the pictures.

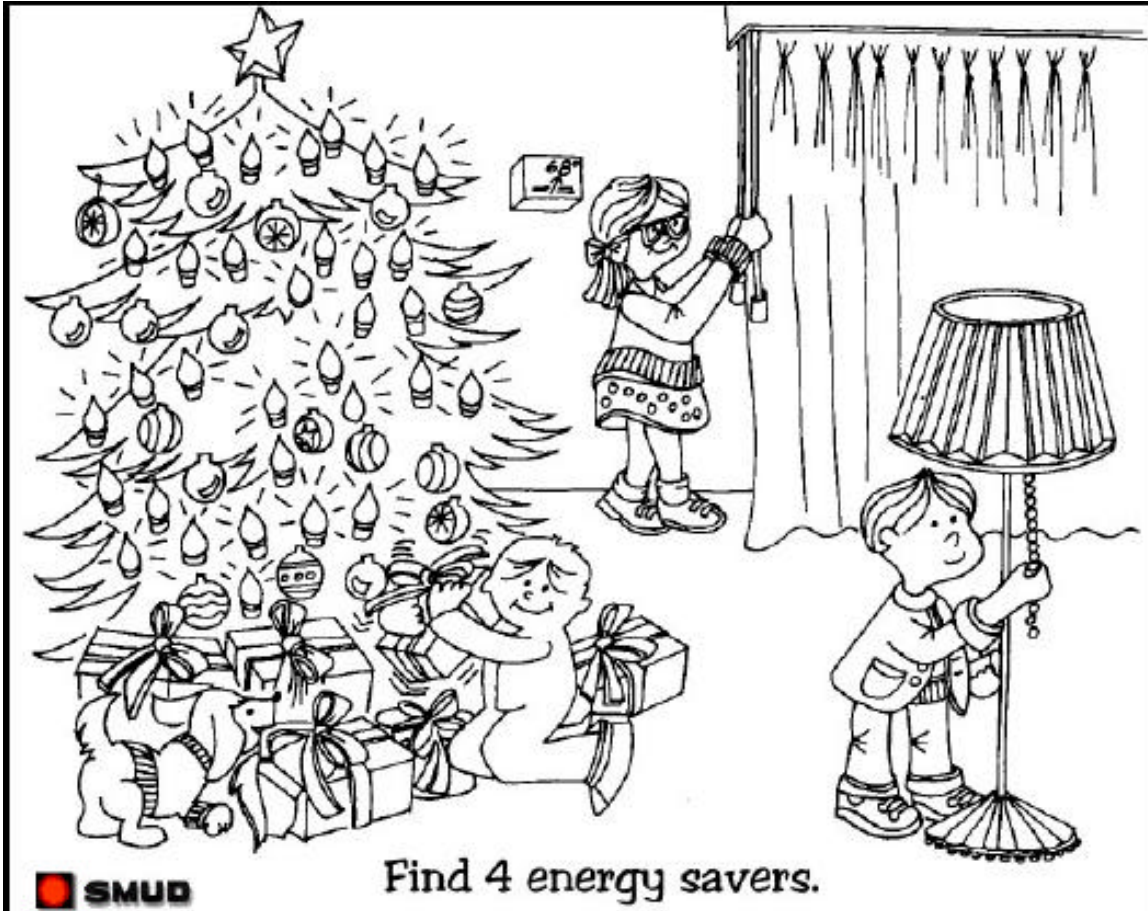
Good Luck Energy Detective!

Kitchen

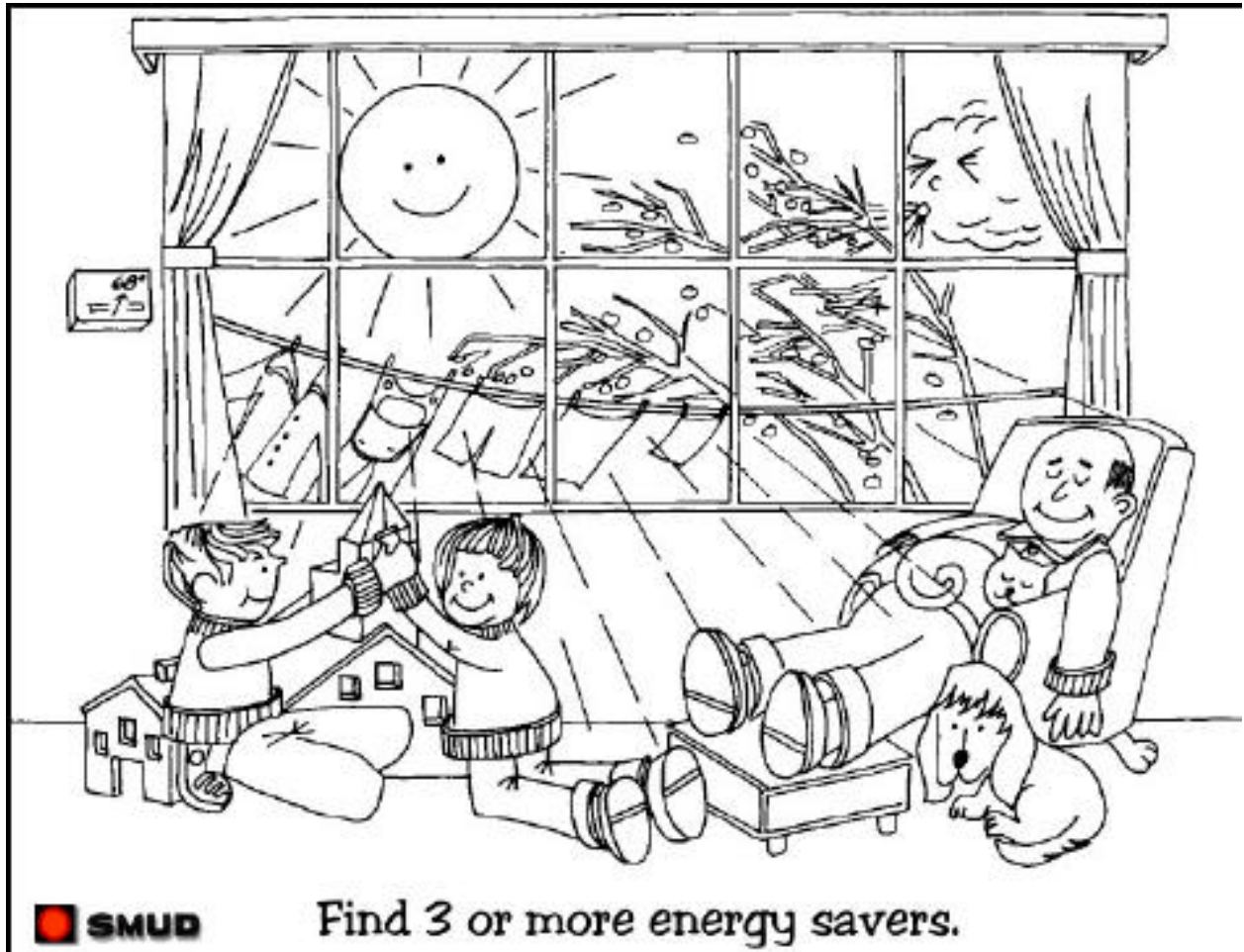


Find 4 energy wasters.

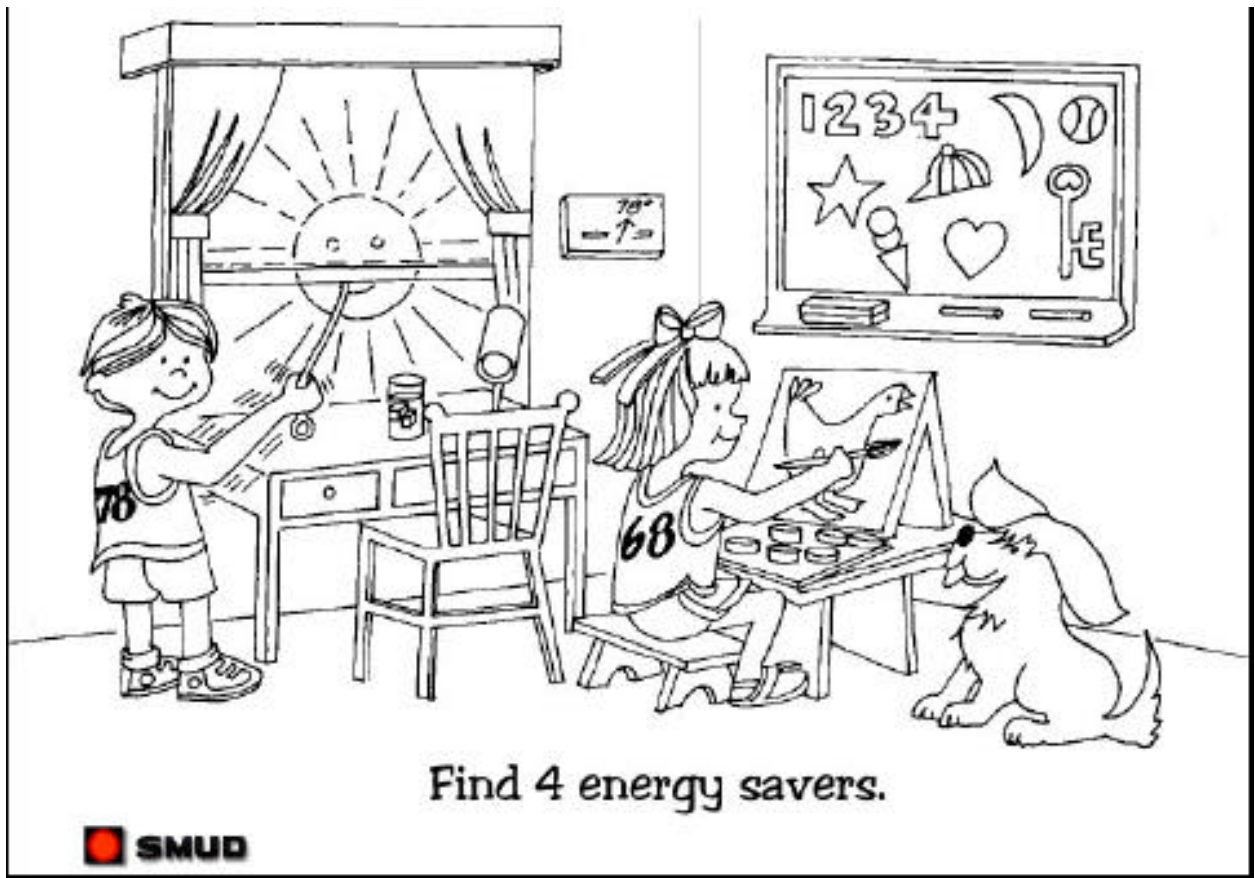
Living Room



Living Room



Recreation / Play Room



Yards Outside



Bathroom



Congratulations!

Great job with your Energy Audit so far!

You have almost completed your Energy Audit. Now you are an expert in looking for Energy Savers and Energy Wasters.

Here is the next challenge.

Can you

1. draw a picture to
2. show the Energy Savers and
3. show the Energy Wasters

in the rooms listed here and any other rooms that have not been audited in your home?

Garage

Basement/Furnace Room

Any other rooms?

Complete the audit of all rooms in your home and make notes of the Energy Savers and Wasters.

Facts and Tips

HOT FACT!



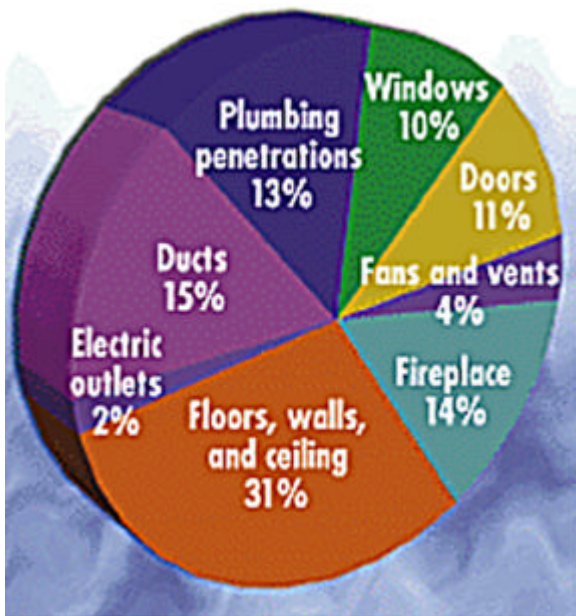
This breakdown is based on a national average of a typical homeowner's water use (USA).

Did you know?

If you had \$1.00 to pay just for the hot water your family uses this is how your money would be used!

<http://www1.ci.berkeley.ca.us/energy/retrofit.html#Low-Cost>

DRAFTY FACT!



Did you know?

AIR LEAKS IN YOUR HOME!

There is air coming in and out of your home all the time through little holes, nooks, and crannies.

About one third of this air goes through openings in your ceilings, wall and floors.

What can
you
and your family
do to stop
the **Energy Wasters**?

A good Energy Detective always involves the entire family in finding and fixing **Energy Wasters**.

Here is a Canadian website
you can use to give your family tips to find
Energy Wasters and Energy Savers.

<http://canadaonline.about.com/gi/dynamic/offsite.htm?zi=1/XJ&sdn=canadaonline&zu=http://www.cbc.ca/news/background/energy/>

Before you work with your family, go to the site to get
some great ideas.

Click on "Consumer Tips" in the right hand margin.

Good Luck with your family!

Canadian Energy Tips

<http://canadaonline.about.com/gi/dynamic/offsite.htm?zi=1/XJ&sdn=canadaonline&zu=http://www.cbc.ca/news/background/energy/>

Inspecting for Heat Leaks

Did you know?

Here are a few ideas from www.Canadaonline.com. This CBC website gives a lot of great ideas to stop the Energy Wasters and help the Energy Savers. Go to the web site if you would like some more tips for your home.

So far we've used up over half the world's known supply of oil.

Prices are going up and the impact on the environment is increasingly severe.

Clothes Washer

- Wash most clothes in cold water.
- Switching the washer temperature setting from hot to warm can reduce a load's energy by half.

Thermostat

- Set the furnace thermostat at 19° C or lower and the air conditioner thermostat at 25° C or higher. Three to five per cent more energy is used for each degree the furnace is set above 21° and for each degree the air conditioner is set below 24°.

Shower

- Install a low flow showerhead, reducing your hot water use by up to 30 per cent.

Automobile

- Drive steadily at posted speed limits; increasing your speed from 90 km/h to 120 km/h boosts fuel consumption by 20 per cent.
- Avoid idling. Idling for 10 seconds wastes more fuel than restarting a car.
- Stops and starts can increase fuel consumption by as much as 39 per cent.

Cob Webs

- Cobwebs are a sign of drafts. Check for drafts around basement windows, doors and frames.

Energy Detective Tools and Tests

As the Energy Detective for your home, you need to search out specific areas that the Energy Wasters have invaded. Here are some ideas for you to use.

1. Draft Detective Tool

- a. What happens when you put your wet hand in the wind? I'll bet it feels colder. That is your **Magic Draft Detector Tool**. Now in order to use your Magic Draft Detector Tool, you need a small glass of water and your hand. Dip your hand into the water and let your Magic Draft Detector Tool start to work in the following areas.

2. Window Draft Detective

- a. Are your windows double paned?
- b. Can your Magic Draft Detector Tool feel a draft coming from the edge of the window?
- c. Can your Magic Draft Detector Tool feel a draft coming from the edge of the window frame?
- d. If you put some caulking around the window, does the draft stop?

3. Door Draft Detective

- a. With your Magic Draft Detector Tool, inspect the edges of the door. Feel for air coming through the door. Is it near where the door is hinged? Or is it near where the door opens? What about the top and bottom of the door? Are there drafts there? And the doorsill? Check with your Magic Draft Detector Tool for drafts in all these places.

4. Wall Plug Draft Detective

- a. With your Magic Draft Detector Tool, examine all wall plugs in your home for drafts.
- b. If you find any drafts, ask your parents to buy some draft stoppers for the plugs. Maybe you can help install some of them.

5. Winter and Summer Blinds and Window Coverings

- a. Go to a window where you found a draft.
- b. Test this window when the sun is shining and when it is cold at night.
 - i. When the sun is shining, is the cold air coming in?
 1. Close the blinds. Is there a difference?
 - ii. At night is the cold air coming in?
 1. Close the blinds. Is there a difference?
 - iii. Tell you family your results. Show them the difference you can make by using the blinds.

6. The Winter Floors

- a. Is there a place in your home where the floors are particularly cold? Why does this happen? What could you do about it? (Idea: What do you do when you go out into the cold? Could you do something like that on the very cold patch of the floor?)

7. Fridge and Freezer

- a. Use a paper to 'test' the fridge/freezer insulation.
- b. If the paper can slip easily between the insulation and the door, you have found a place where the energy wasters could get out! What can you do to block this draft? Sometimes the door has become dirty with mould and needs to enjoy a good cleaning.

8. The Hot Day Wet Collar

- a. Have you ever heard of the Hot Day Wet Collar? When you are really hot, take a small towel, wet it and put it around your neck. Try putting it over your head and around your shoulders! Does it make a difference?

Can you create an Energy Waster test for any of the following?

- a. Lights
- b. Vacuum
- c. Washing dishes
- d. Brushing teeth
- e. Showers
- f. Computers
- g. Washing clothes
- h. Listening to music
- i. Watching TV/reading
- j. Cooking
- k. Cable box

Now for some cool calculations:

1. A leaky tap

- a. Place a cup under a leaky faucet and measure the time it takes to collect 1 cup of water – how much water would you collect in a year and what would the cost of the water be?

2. Energy efficient light bulbs

- a. Count the number of light bulbs in and around your home. How many can be replaced by energy efficient florescent bulbs? What would the cost saving be over 5 years?

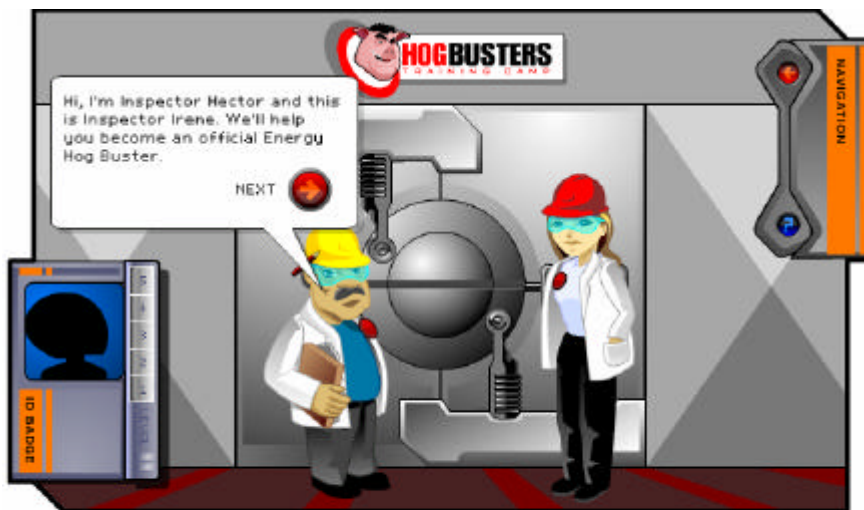
Savings! Savings! Savings! Savings! Savings! Savings!



In one year you could save \$50.00 or more for each computer you turn completely off when not in use!

The HOG BUSTERS GAME

Hog Busters is an awareness game where you learn how to fix an energy problem before the hog busters get through the energy barriers. You will find drafts coming through the window and will have to caulk the window before the hog busters reach the window. Hot air is leaking through the attic and you have to get the insulation rolled out before the hog busters get to you. There are games to play in 5 different rooms of your house.



Try it, you'll have fun! All you need to do is put this URL into your browser and follow the Inspectors' directions.

<http://www.energyhog.org/>