

# Earth-Kind Home

Indoor Air Quality ~ Energy Efficiency ~  
In-Home Water Conservation



Presented by:

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# Why have an Earth-Kind Home?

*Did you know?*

Most people spend 90% of their time indoors or roughly ½ their lives inside!

There can be hidden health dangers in your home.

By changing just a few everyday habits, you can save money.

- \* Indoor Air Quality  
Asthma/Allergies, Mold, CO
- \* Energy Efficiency
- \* Water Conservation

# Indoor Air Quality

## \* Asthma and Allergies

### Common Asthma Triggers:

Pollen and Dander  
Insects – roaches, mites  
Dust, Mold  
Carbon Monoxide  
Cleaning products

### Allergy Triggers:

Foods, Medicine,  
Stings/Bites  
Contact Allergens: perfume,  
lotions



## Tips to Control

### Healthy Housekeeping:

- ~Reduce clutter
- ~Store belongings in plastic or cardboard\* boxes
- ~Vacuum rugs and carpets frequently
- ~HEPA filters

Control Pests\* and Mites

Check Appliances



## \* Mold and Moisture

May have a musty smell

*Mildew* is a common name for Mold

Spores travel through the air and can cause health problems

Can trigger asthma attacks and allergy symptoms

Occurs in damp areas, around leaky fixtures and faucets, on windows and wall where condensation collects

## Tips to Control

- ~Maintain less than 50% humidity
- ~Repairs leaks in walls, around windows and doors, on roofs
- ~Increase airflow, use bathroom fans
- ~Maintain clean gutters, slope dirt away from the foundation of home
- ~Empty drip pans frequently
- ~Clean moldy surfaces with chlorine bleach (1 cup to 10 cups water)  
Spray or sponge on bleach solution and let sit for 15 minutes to kill mold

### \* Carbon Monoxide

Odorless, tasteless, invisible

Causes around 500 deaths every year

Signs/Symptoms: may seem like flu

~ Headache, nausea, vomiting,  
dizziness, weakness, confusion,  
sleepiness, tightness in chest

Where does it come from?

- ~Wood burning fireplaces/stoves, blocked chimneys/flues
- ~Gas/LP/oil furnaces, water heaters, boilers
- ~Gas appliances
- ~Heaters, grills, vehicles, gas/LP powered equipment
- ~House fires and tobacco smoke

### Tips to Control

- ~Never use charcoal /gas grills or generators inside your home
- ~Routine fall maintenance on gas/oil/LP heating systems
- ~Check venting for all gas appliances, there should be no gaps between vent pipes and appliances
- ~Clean/sweep chimneys yearly
- ~Use CO alarms near all sleeping areas
- ~Never use a kitchen stove/oven to heat your home
- ~Flames burning orange or yellow require attention
- ~ Do not block air openings or exhaust vents

# Energy Efficiency

## \* Reduce Consumption (free)

- ~Unplug- “standby mode” can use as much energy as a 100 watt light bulb
- ~Set computers to sleep and hibernate
- ~Take control of temperature
- ~Use appliances efficiently
- ~Turn out the lights
- ~Close the doors, control drafts



## \* Reduce Consumption (minimal cost)

- ~Weatherize (caulk and weather stripping)
- ~Switch to Compact fluorescent lights
- ~Use water heater tank blankets
- ~Keep HVAC filters clean
- ~Install low-flow showerheads and faucet aerators
- ~Install a programmable thermostat

### \* Reduce Consumption (costly)

Buy energy-efficient appliances (Energy Star)

Insulate (if needed)

Choose renewable energy:

Solar

Wind

Low-impact hydroelectric

Geothermal



Lists key features of the appliance you're looking at and the similar models that make up the cost range below.

What you might pay to run the appliance for a year, based on its electricity use and the national average cost of energy. The cost appears on labels for all models and brands, so you can compare energy use just like you would price or other features.

An estimate of how much electricity the appliance uses in a year based on typical use. Multiply this by your local electricity rate on your utility bill to better judge what your actual operating cost might be.

U.S. Government Federal law prohibits removal of this label before consumer purchase.

# ENERGYGUIDE

Refrigerator-Freezer

- Automatic Defrost
- Side-Mounted Freezer
- Through-the-Door Ice

XYZ Corporation  
Model ABC-L  
Capacity: 23 Cubic Feet

## Estimated Yearly Operating Cost

**\$67**

\$57 ————— \$74

Cost Range of Similar Models

**630 kWh**  
Estimated Yearly Electricity Use

Your cost will depend on your utility rates and use.

- Cost range based only on models of similar capacity with automatic defrost, side-mounted freezer, and through-the-door ice.
- Estimated operating cost based on a 2007 national average electricity cost of 10.65 cents per kWh.
- For more information, visit [www.ftc.gov/appliances](http://www.ftc.gov/appliances).



The maker, model, and size tell you exactly what product this label describes.

The cost range helps you compare the energy use of different models by showing you the range of operating costs for models with similar features.

If you see the ENERGY STAR logo, it means the product is better for the environment because it uses less energy than standard models.

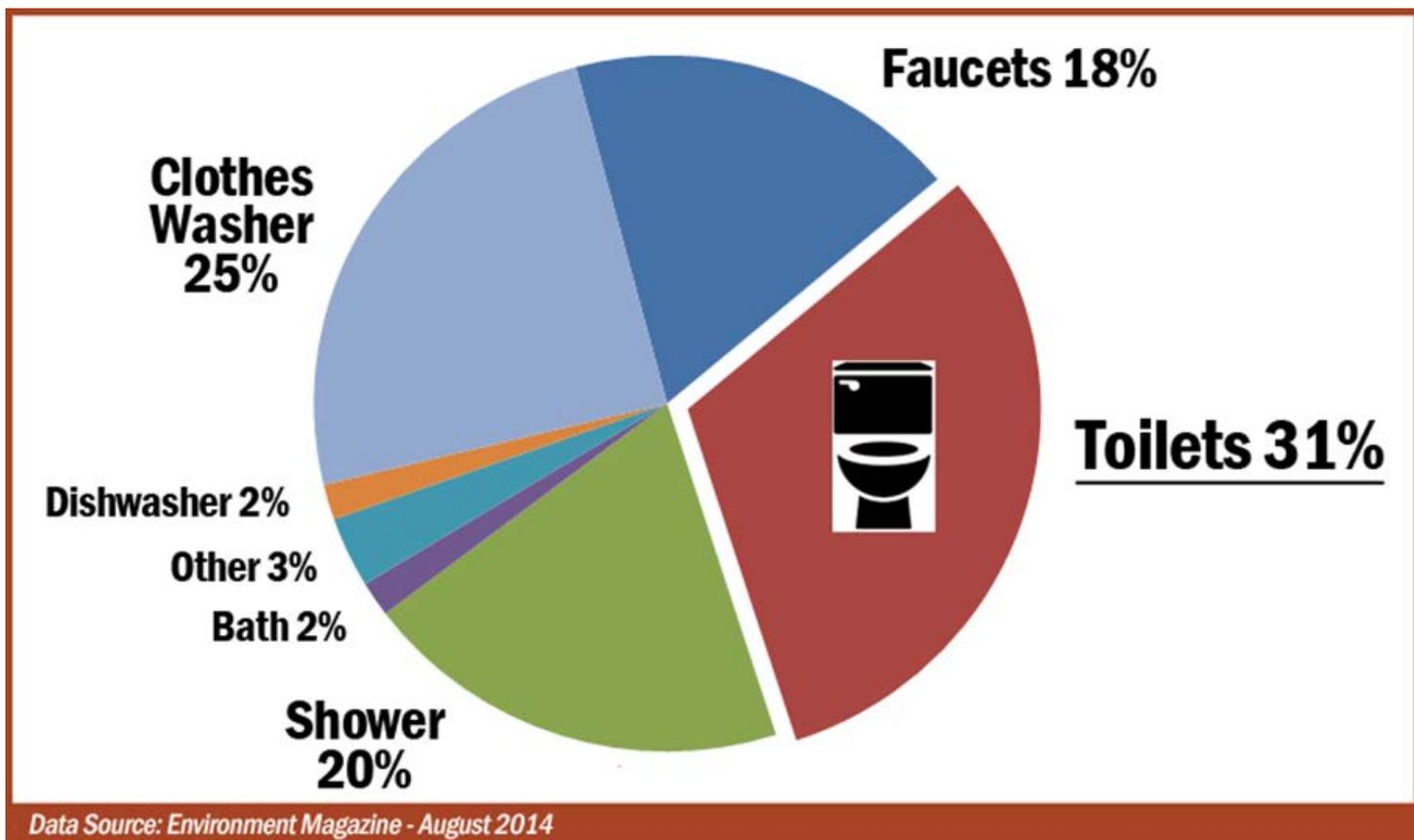
# In-Home Water Conservation

- \*A typical family uses 60–80 gallons of water per person per day.
- \*Water demand in Texas is projected to increase by 22 percent between 2010 and 2060.
- \*As a result, protecting water resources and utilizing *water-conservation* practices will be essential to sustain the state's water supply-and-demand balance.

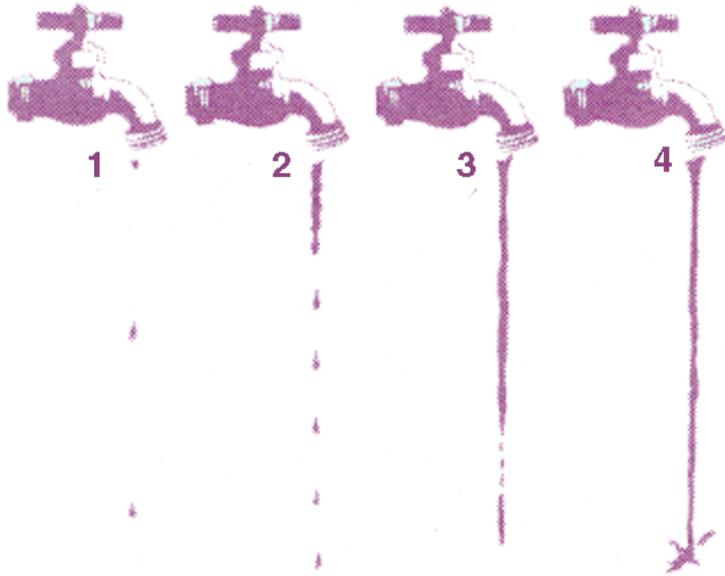
## Tips to Control

- ~ Stop Leaks
- ~Change Behaviors
- ~Replace your equipment with water-efficient equipment (pre-1992 fixtures)

## Single Family In-Home water use



## WATER WASTED IN ONE MONTH FROM LEAKS



	gallons/month
1. a slow steady drip (100 drops a minute)	350
2. a fast drip	600
3. a small stream	2,000-2,700
4. a large stream	4,600

# WaterSense®



**Did you know?...**

Flushing the toilet accounts for 30% of household water usage. By placing a brick in the toilet cistern we could save 10 million litres of water a day.

# 40 GALLON CHALLENGE

<http://www.40gallonchallenge.org/index.cfm>

*Fix a leaky faucet. Save 15 gallons*

*Fix a leaky toilet. Save 30 gallons*



**Daily Water Savings**  
1 8 6 3 7 9 7 Gallons  
saved from  
10,860 United States  
pledges

## Top 3 actions pledged

saving most water:

Reduce irrigation station runtimes by 2 minutes.

(218480 gallons)

Use a broom instead of a hose to clean driveways and sidewalks.

(134024 gallons)

Fix a leaky toilet.

(129990 gallons)

## Conclusions:



The concepts and tips for an **Earth -Kind Home** discussed today:

**Air Quality**  
**Energy Efficiency**  
**In-Home Water Conservation**

Put into practice can help to balance quality living, environmental stewardship, and overall well-being for Texans.

TEXAS A&M  
**AGRI**LIFE  
EXTENSION

# Any Questions?



## Source materials:

*Help Yourself to a Healthy Home* – US Department of Housing and Urban Development

*Mold, Moisture and Your Home* – Environmental Protection Agency

Water Education Network, Texas A&M AgriLife Extension - <http://water.tamu.edu/>

Energy Star website - <https://www.energystar.gov/>

Water Sense website - <https://www3.epa.gov/watersense/>