



"SMART HOUSE" Game



The SMART HOUSE game can be played by the entire class or with groups of up to six students. Great activity to review energy efficiency facts and information about Smart Grid technology.

ENTIRE CLASS - Divide students up into groups of six. Each group takes a turn rolling the die and answers a question about that room or category asked by the teacher. Groups take turn trying to be the first to complete their smart House with the puzzle pieces.

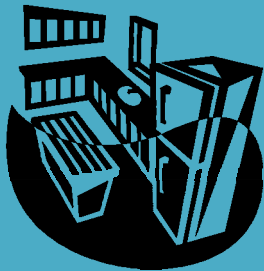
INDIVIDUAL GROUPS - Each group has up to six students with one student in each group being the moderator and asking the questions. Each member of the group tries to fill their Smart House puzzle first.

SMART HOUSE

#1 OFFICE



#2 KITCHEN



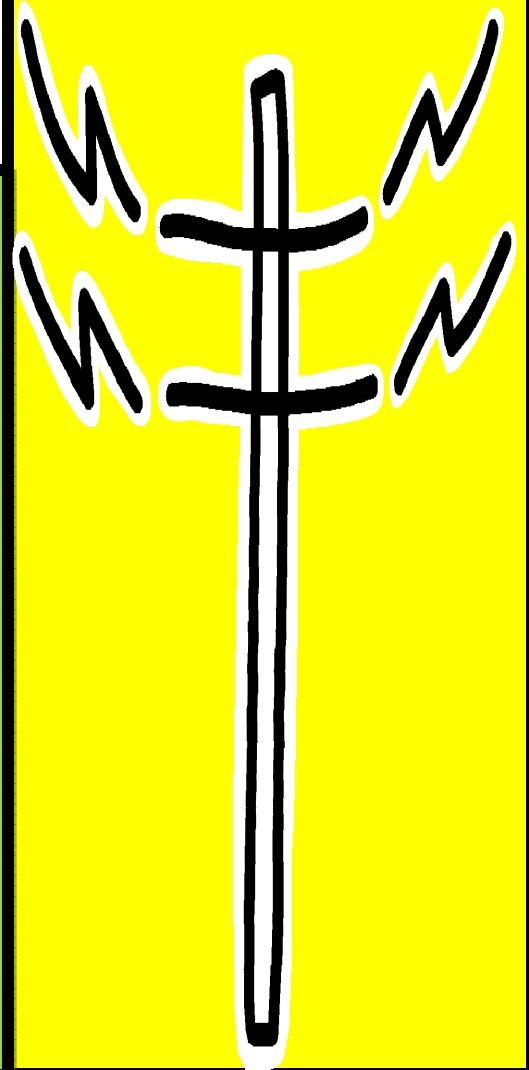
#3 LIVING AREAS



#5 OUTDOORS



#6 SMART GRID

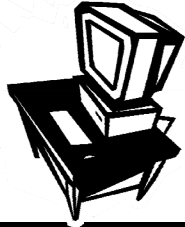


#4 BASEMENT & GARAGE

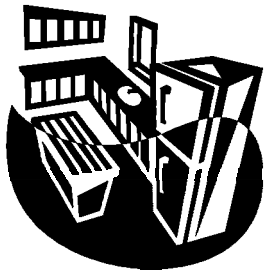


SMART HOUSE

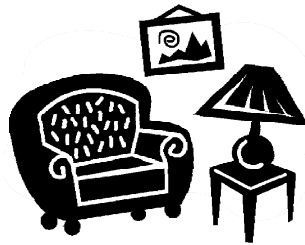
#1 OFFICE



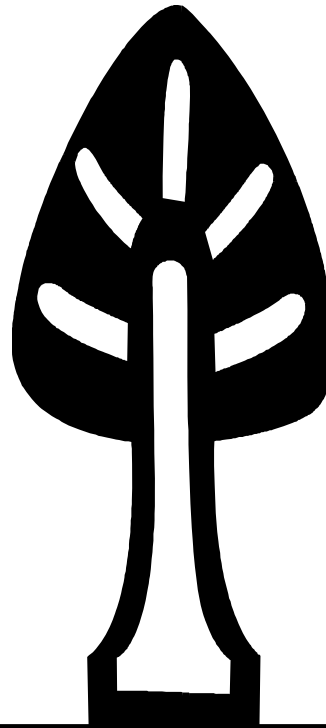
#2 KITCHEN



#3 LIVING AREAS



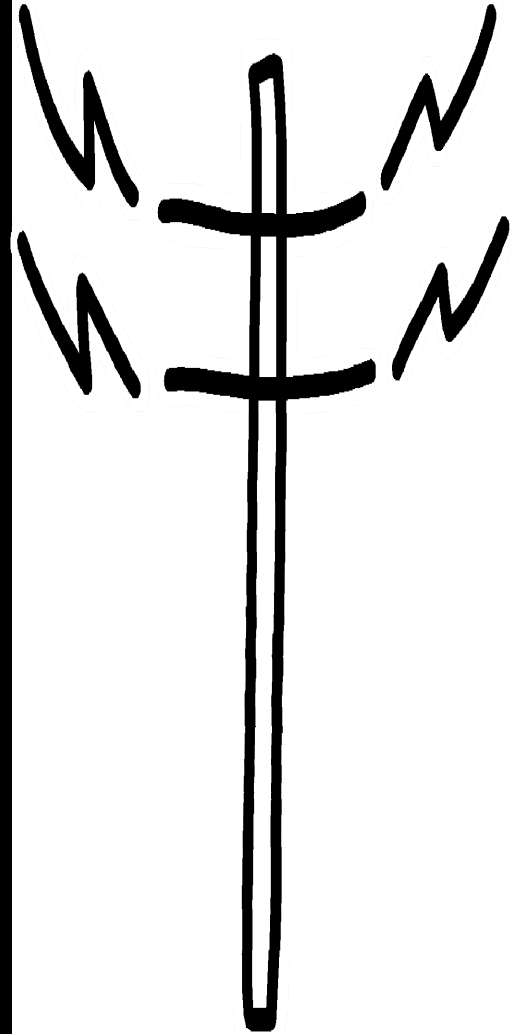
#5 OUTDOORS



#4 BASEMENT & GARAGE



#6 SMART GRID



SMART HOUSE

1 – OFFICE

Which use less energy, desktop computers or laptop computers?

Laptop

T or F: Screensavers reduce the energy used by computer monitors.

False

T or F: An Energy Star labeled computer uses 70% less energy than computers without this designation.

True

For a small desk lamp, what type of bulb uses even less energy than a CFL?

LED

T or F: Office equipment lasts longer if it is never turned off.

False

What common piece of equipment makes it easy to turn off power to many devices at once?

Power strip

2 – KITCHEN

What kitchen appliance uses the most energy and costs most to use over the course of a year?

Refrigerator

What is most of the energy used by a dishwasher for?

Heating water

Besides an Energy Star label, what other type of label should you look for when purchasing a dishwasher, oven, or refrigerator?

Energy Guide

T or F: When designing a new kitchen, place the refrigerator next to the oven or dishwasher for energy savings.

False

Which is most energy efficient: an oven door with a window or without?

With a window

T or F: The recommended temperature setting for your refrigerator is 37° – 40° Fahrenheit.

True

3 – LIVING AREAS

T or F: You should use your fireplace as much as possible during winter months.

False

On south-facing windows, should drapes and shades be kept open or closed during winter daylight hours?

Open

T or F: Keeping houseplants adds humidity to your home, making the air feel warmer.

True

What type of thermostat allows you to better manage your home's temperature, thereby saving energy?

Programmable

What colors should you paint your walls to reduce both the amount of light you need and energy consumption?

Light colors

Efficient windows have at least how many panes of glass?

Two

4 – BASEMENT AND GARAGE

Which uses more energy, a top-loading washing machine or a front-loading washing machine?

Top-loader

What should be done to the clothes dryer after each load?

Clean out the filter

T or F: A setting of 120° Fahrenheit provides comfortable hot water for most uses.

True

Cars that utilize two or more distinct power sources to propel the vehicle are called _____.

Hybrids

What can be done to your car's tires to reduce fuel consumption and improve MPGs?

Keep them properly inflated

T or F: For optimum efficiency, furnace filters should be changed once a year.

False

5 - OUTDOORS

A well-placed tree or shrub can deliver shade and act as a _____ which will reduce your energy bills.

Windbreak

A room air conditioner should be placed on which side of the house for greatest fuel economy?

North

What type of lights thrive outdoors because of their durability and performance in cold weather?

LEDs

T or F: If you have a rooftop solar installation, smartGrid technology may allow you to sell excess electricity back to the utility.

True

T or F: In the north, large picture windows are best placed on the south side of your home.

True

Name a technology that makes outdoor lights more energy efficient.

Motion sensors or detectors, daylight sensors (photocells)

6 –SMART GRID

What is the term for hours of the day when electric demand is at its highest level?

Peak

T or F: Parts of the smart grid, such as installation of smart meters, are already reality in some parts of Ohio.

True

Smart meters will enable direct two-way communication between the utility and the _____.

Customer (or consumer)

T or F: In the near future, consumers will be able to remotely communicate with and control their appliances, thermostats and electronics.

True

What hours of the day are commonly considered hours of "peak demand"?

Between 12 noon and 6 pm

Will smart meters and appliances communicate with the utility using transmission wires or wireless technology?

Wireless technology