

## @Home Energy Audit

### Summary

With families at home now more than usual, it's a good time to reflect on energy usage in your house. In some homes, "Turn out the lights!" is a common family phrase. Do you know why it is a good practice to turn out the lights? Yes, it saves money on our energy bill, but what else does it mean when we turn out the lights?

When you use energy wisely by keeping most of your lights off during the day, you also help reduce greenhouse gas emissions and conserve limited natural resources. That sounds like a win for everyone!



### Activity

1. Walk through the rooms in your house during the day.
2. Think about what activities take place in that room.
3. Decide if there is enough daylight in the room with the lights off during the day. For example, in the living room where you might watch TV, do you need a light on during the day?
4. Become the light monitor! Print the handout below to decide which rooms can go without lights during the day. Talk about your findings with your parents.

### Activity Data Sheets

Print out the worksheet for your child's grade level, provided on the following pages, and have them fill it out.

# Instructions

## @Home Energy Audit K-3 Data Sheet

Walk through your home during the day and fill out the chart below.

| Room Name   | Number of Lights On | What activities take place in the room? | Is there enough light with lights off? |
|-------------|---------------------|---|--|
| Living room | 11                  | Watching TV                             | Yes                                    |
|             |                     |   |  |
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From your chart, you can see what rooms do not need lights during the day. You can become the LIGHT MONITOR at your house and make sure the lights are off in rooms that don't need them!

How can you remind your family to keep the lights off? You might make a sign to hang in the room, talk to your family at dinner, or make a skit. Choose one way to remind our family about the lights this week.

Draw the same chart on the back of this page and fill it out next week. Did you notice any changes? How did your reminders help?

\*\*Bonus - How can you help with lights when you get back to school?

# Instructions

## @Home Energy Audit 4-6 Data Sheet

Walk through your home during the day and fill out the chart below.

| Room Name   | Number of Lights On | What activities take place in the room? | Is there enough light with lights off? |
|-------------|---------------------|---|--|
| Living room | 11                  | Watching TV                             | Yes                                    |
|             |                     |   |  |
|             |                     |   |  |
|             |                     |   |  |
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After your walk through the house, what did you notice? Were there rooms that had lights on that could be left off during the day?

### Take action!

Using all of this information, think of a creative way to remind your family to turn off the lights. Can you make a sign to hang up in the room that uses the most energy, start a discussion at a family meal time or make a skit?

### Math Challenge

#### Calculate how much it costs to light one room in your house:

- Choose a room in your house that has the most light usage during a 24 hour period
- Look at the wattage (W) of the light bulbs (make sure the light is off and have a parent help if needed) and record how many of each are in the room.

25 W \_\_\_\_\_ 40 W \_\_\_\_\_ 60 W \_\_\_\_\_

75 W \_\_\_\_\_ 100 W \_\_\_\_\_ Other \_\_\_\_\_

- Estimate about how long during the day the lights are on in that room- for example, a light in the kitchen might be on from 6-8 am and then 6-9 pm so the total would be 5 hours
- The average cost per kWh is \$0.13
- There are 1000 watts in 1 kilowatt
- Fill in this equation for each light bulb to find the cost per day:

\_\_\_ W X \_\_\_ bulbs X \_\_\_ Hours Per Day ÷ 1000 X \$0.13 = \$ \_\_\_\_\_

# Instructions

- Add all of the prices together for the total price per day to light that room