

Energy Efficient Lighting

Worksheet 2: Taking Action to Save Energy
Energy Revealed
Grade Level: 4-7



1. **List** the times when your class could turn the lights off.

ACTION		ACTION	

2. **Discuss how you will decide** which actions to take, then check the ones your class is ready for.

Okay, now what? What's our plan?

3. For each checkmark on the previous page, describe how you will make it happen.

ACTION	HOW?	WHO?	WHAT DO WE NEED?	HOURS/WEEK SAVING
				+
				+
				+
<p>4. Add each of your plan's action savings. Use the total house saved to calculate your kg GHG savings on page 3.</p>				<p>=</p> <p>hours</p>

5. Research

Look at the different bulbs in the room to determine what kinds are there. Read the label on each bulb to determine the number of watts it uses. Then circle the bulb type on the chart given on the worksheet.

Compact fluorescent	
	38 watts
	23 watts
	20 watts
	13 watts
	10 watts
Incandescent	
	150 watts
	100 watts
	75 watts
	60 watts
40 watts	
Fluorescent	
	40 watts
	28 watts
Halogen	
	40 watts
	32 watts
	24 watts
LED	
	6 watts
	7 watts
	8 watts

6. Collect Data

Count the number of bulbs of each kind and record it on the worksheet.

bulbs

X

watts

watts

7. What does it take to light the room?

Calculate how much energy is needed to power the lights by multiplying the bulbs and watts.

8. How long are the lights on?

Estimate how many hours the classroom or the room lights are on each week and record it on the worksheet.

hours

X

watts

watt-hours

10. Convert watt-hours to kilowatt-hours

watt-hours

/

1000

9. What does it take to light the room for a week?

Calculate how much energy is needed to power the lights for a week by multiplying the hours and watts.

kilowatt-hours

11. How many kilograms of greenhouse gas emissions is that? Demonstrate how to use the Energy Calculator.

kilowatt-hours

X

MULTIPLIER

=

Kg GHG