

# School Light Survey

HOW CAN YOU CONVINCE OTHERS TO PROMOTE ENERGY CONSERVATION?

## Use students' math skills to calculate energy usage at school.

Have the students conduct a survey of lights at your school. You can divide them into teams to survey different areas.

### Count the bulbs:

#### In the classrooms

Count the number of light bulbs (not just fixtures) in the classrooms, and multiply by the wattage. Multiply that figure by the number of hours each day the room is used.

$$(\text{Bulbs} \times \text{Wattage}) \times \text{Hours} = \text{Classroom Energy}$$

#### In the halls

Count the number of bulbs in the halls, multiply by the wattage, and then by the number of hours a day they are used. Some may be on 24 hours a day as a safety consideration.

$$(\text{Bulbs} \times \text{Wattage}) \times \text{Hours} = \text{Hallway Energy}$$

#### In other areas

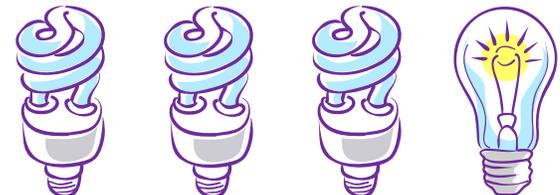
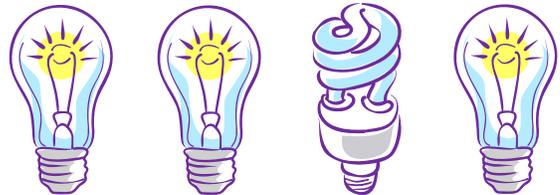
Count the number of bulbs in other areas – gym, cafeteria, office, etc. – and again multiply by wattage and by how many hours the lights are on each day.

$$(\text{Bulbs} \times \text{Wattage}) \times \text{Hours} = \text{Other Energy}$$

#### Add it all up

Add it all up to see approximately how much electricity is used for lighting at school each day. Are any lights left on when they don't need to be on?

$$\text{Classroom} + \text{Hallway} + \text{Other} = \text{Total Energy}$$



## BONUS ACTIVITY

Have the students find out how much the school pays your energy company per watt of electricity, and calculate the approximate cost of school lighting each day.

Invite the building engineer to your class to talk about what the school district has done to save money and energy on lighting.