



# How Many Ways to a Kilowatt Hour? Scavenger Hunt

*Directions: Traditionally a scavenger hunt is a game in which the participants (individuals or teams) work to gather – or perform tasks involving – the items on the list. While typically the goal of a scavenger hunt is to be the first to complete the list, the goal here includes not only “finding” everything on the list, but doing so in the most creative manner. Most clues require calculations – to receive full credit you must show and label your work. An example solution has been given for number 1.*

$$\begin{array}{c} \text{-----} \\ 1000 \text{ watts (W)} = 1 \text{ kilowatts (kW)} \\ 1 \text{ kilowatt hour (1 kWh)} = 1 \text{ kW or } 1000 \text{ W used over the period of an hour} \\ \text{-----} \end{array}$$

Looking for a few more clues to get started? Remember, information about how many Watts different appliances use can be found on an appliance’s nameplate, in its owner’s manual, or by using a Kill A Watt meter. You may have also recorded Wattage information on your Appliance Cards. The *PowerSleuth* website ([www.powersleuth.org](http://www.powersleuth.org)) also has helpful resources.

## **1** A way to use incandescent light bulb(s) equal to 1 kWh

Example solutions: 100 watt bulb used for 10 hours = 1000 watts/hr or 1 kWh

OR 10 100 watt bulbs used for 1 hour = 1000 watts/hr or 1 kWh

Your solution:

## **2** A way to use one kitchen appliance equal to 1 kWh

Your solution:



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**3** A way to use a different kitchen appliance equal to 1 kWh

Your solution:

**4** A way to use two kitchen appliances at the same time equal to 1 kWh

Your solution:

**5** An appliance that could use 1 kWh of electricity in less than 10 minutes

Your solution:

**6** A way to hear your favorite songs using 0.5 kWh

Your solution:

**7** The most efficient way (the method that uses the smallest number of kWh) to heat up pizza

Your solution:

**8** A way to watch the most movies (average length of 1.5 hrs) equal to 1 kWh

Your solution: