



## Energy calculations

Name: \_\_\_\_\_

Did you know that electricity is measured in kilowatt hours and gas is measured in megajoules?

1. Research 'energy conversion' on the Internet to complete the following conversion table.

Conversion table	
1 kilowatt (k) =	watts (W)
1 kilowatt hour (kWh) =	watt hours (Wh)
1 megawatt hour (MWh) =	kilowatt hours (kWh)
1 kilowatt hour (kWh) =	megajoules (MJ)
1 gigajoule (GJ) =	Joules (J)

Now answer the following questions.

2. If a light globe runs for 24 hours a day, 365 days a year, how many hours will it run?

$$24 \text{ hours/day} \times 365 \text{ days/year} = \underline{\hspace{2cm}} \text{ hours/year}$$

3. A common light globe uses 60 watts per hour. How many watt hours of electricity will the light globe use in one year?

$$\underline{\hspace{2cm}} \text{ hours/year (from question 2)} \times 60 \text{ watts} = \underline{\hspace{2cm}} \text{ Wh/year}$$

4. Now convert watt hours to kilowatt hours.

$$\underline{\hspace{2cm}} \text{ Wh/year (from question 3)} \div 1000 = \underline{\hspace{2cm}} \text{ kWh/year.}$$