**Units and Cost of Energy and Power**

**Recap:**

The SI unit for Energy is *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

Power is the amount of energy used over time or .

The other unit for power is *\_\_\_\_\_\_\_\_\_\_\_*, where 1 *\_\_\_\_\_\_\_* is 1 joule of energy being used each second.

**Example**: A mid-sized colour TV uses about *\_\_\_\_\_\_\_\_\_\_\_\_\_* of power. This means *\_\_\_\_\_\_\_\_\_\_* of energy each second.

How long do you usually watch TV in one day?

This means the energy used to watch TV in one day is:

When being billed for energy usage, we can see that using Joules would leave us with some frustrating numbers to deal with. So a new unit is made:

The unit used by energy companies is the energy used by \_\_\_\_\_\_\_ in \_\_\_\_\_\_\_\_\_\_.

How many joules are in 1 kWh?

So how many kWh will watching TV take?

**Cost of a kWh**. Right now in BC, 1kWh costs 8 cents up to a certain usage amount, and then it costs 11 cents. So we will use an average of 10 cents per kilowatt-hour.

**Example 1:**

Jim uses the stereo for 5 hours a day. If it takes 110W to operate a stereo, how much energy does it take to listen to the music for one day? Give answer in kWh.

How much does this cost Jim?

**Example 2:**

A toaster uses 1150W when it is operating. Toasting one piece of toast takes 2 minutes. How much energy in kWh does it take to make 4 pieces of toast?

What is the energy cost of making 4 pieces of toast?