Appliances 'matching appliance and their electric power used' game.

Instructions for Sustainable Living Programme class/group facilitator:

There are 16 pictures here of electrical appliances, matched with 16 comments on the electricity used by each activity (two per sheet, so cut into 32 pieces). Note that one unit = one kWh (kilowatt hour).

The sheets should be printed or photocopied, single sided, direct onto recycled card, or onto paper (white or a single colour) that is then pasted onto cardboard (you could perhaps recycle cereal packs or similar clean boxes?), to allow repeated use.

At the session, distribute all pieces at random around the group. Ask them to match each appliance to the appropriate energy-use comment, using a tabletop to match them upon, so that all can be seen and read.

Move into discussion of different appliances' power use after this. Have spreadsheet handout about power use available for reference display and/or to distribute.

You may like to ask the participants to sort the appliances in a sequence according to amount of power use in, say, a typical winter week (or alternatively by power use per hour).

(Tutors, please note the comments made by participants on the appliances that are mentioned here, in case we need to alter any of these pairs, or should be adding useful extra examples)

This 2009 edition edited & updated for us by Melanie Voyce, a SL tutor in Auckland.

Answers:

Appliance	Comment
Energy Saving Bulb	These 6 use just **0.6 units** over **5 hours** in the evening.
Hairdryer	Using **0.25 units**, and costing about 6 cents for glossy, flowing locks!
TV & Video	It takes **0.5 units** for **each item** for the **two hours**. A new plasma screen would use more than twice as much energy as the old screen (0.55 units / hr).
Beer Fridge	This cool customer 'drinks' up **3 units a day**, but itself would never fail a breath test!
Front loader Washing Machine	It needs only **0.25 units per load** (costs about 6 cents) plus a suitable liquid detergent for cold washes.
Top loader Washing Machine	It needs **4.5 units per load** for water heating and to drive machinery that is less-efficient than a modern front loading machine
Laptop Computer	Uses **0.19 units for 3 hours** of checking mail and web surfing. That is less than 5 cents! A desktop one would use 0.75 units in 3 hours.
100W light bulb	These 6 used **2.5 units** over **5 hours** in the evening.
Oven	This uses **1.67 units** for the **80 minutes** it takes me to prepare them this way.
Stove	This uses **0.42 units** for the **20 minutes** it takes to prepare them this way.
Electric Blanket	Enjoy warmth when tucked in for **0.3 units** (7 cents) **each evening**, compared to 4 units for several hours from a fan heater that warms the air but not the bedding!
Dishwasher	It uses **2 units per load**, to 'put a sparkle on the table'. These can be more energy and water efficient than doing the same chore by hand!
Oil filled column heater	This uses **2 units per hour** of warmth. It's an expensive way to keep warm!
Alarm Clock	It takes **only 0.5 units per week** to run its display and keep time accurately (that's less than 2 cents per day).
Spa Pool	This 'good clean fun' can take up to **10 units a day** to keep it safe and warm enough to sit in any time. That's equivalent to heating more than two conventional baths per day.
Heat Pump	It moves heat about much as a fridge does, and only needs **0.7 units each hour** in electricity to power it. It gives out 2.5x more heat than using that same power in an oil filled fin radiator or a bar heater.

Cut here

I changed my 6 most used light bulbs to the energy saving compact fluorescent type.

These 6 use just **0.6 units** over **5 hours** in the evening.

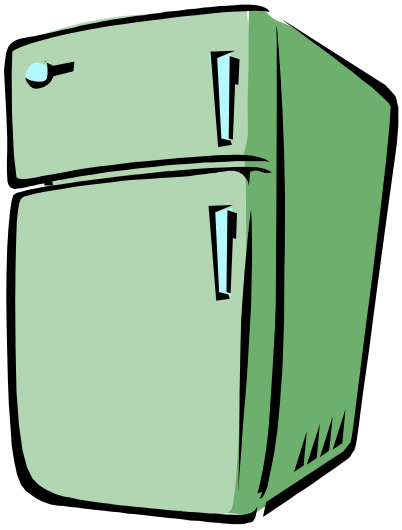
Blow with a hair dryer for 10 minutes.

Using **0.25 units**, and costing about 6 cents for glossy, flowing locks!

We run a TV & home Video or DVD player, to watch a 2 hour movie.

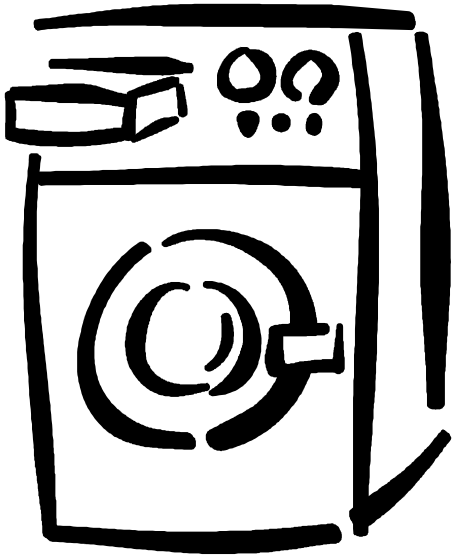
It takes **0.5 units** for **each item** for the **two hours**.

A new plasma screen would use more than twice as much energy as the old screen (0.55 units / hr).



I have a refrigerator keeping beer bottles (& little else) cool, in an uninsulated garage.

This cool customer ‘drinks’ up **3 units a day**, but itself would never fail a breath test!



I run a cold wash in the front loader. (Front loading washers need less power & water than most top loaders.)

It needs only **0.25 units per load** (costs about 6 cents) plus a suitable liquid detergent for cold washes.

My hot clothes wash is in the top loader.

It needs **4.5 units per load** for water heating and to drive machinery that is less efficient than a modern front loading machine.

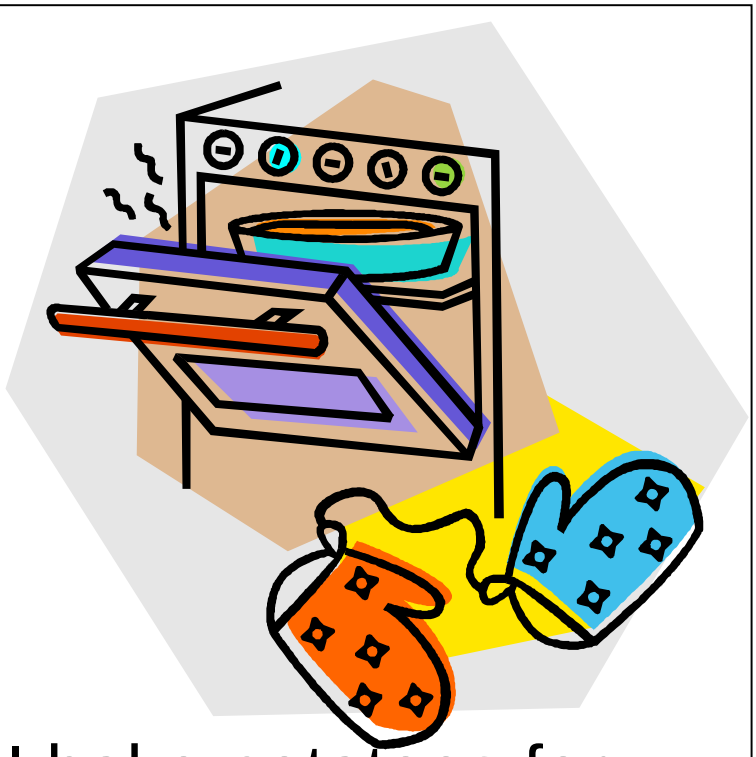
I have a new laptop computer for home.

Uses **0.19 units for 3 hours** of checking mail and web surfing. That is less than 5 cents!

A desktop one would use 0.75 units in 3 hours.

I used to have six 100W light bulbs on in the living area all evening.

These 6 used **2.5 units** over **5 hours** in the evening.

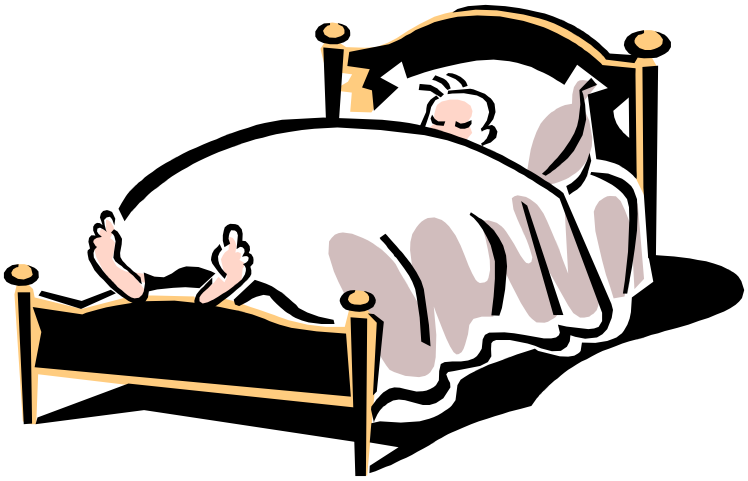


I bake potatoes for dinner in the oven.

This uses **1.67 units** for the **80 minutes** it takes me to prepare them this way.

My partner prefers to boil potatoes on the stove-top.

This uses **0.42 units** for the **20 minutes** it takes to prepare them this way.

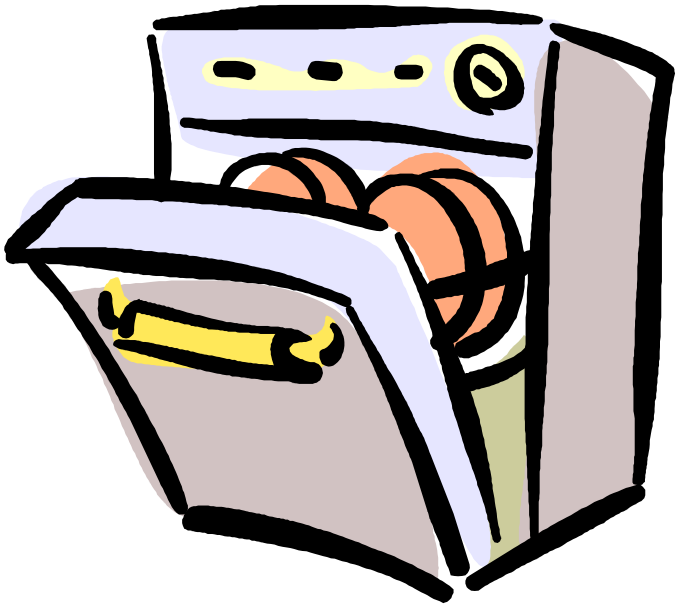


Make the bed warm with an electric blanket, two hours an evening.

www.sustainableliving.org.nz

Enjoy warmth when tucked in for **0.3 units** (7 cents) **each evening**, compared to 4 units for several hours from a fan heater that warms the air only!

www.sustainableliving.org.nz



Our neighbours have a new dishwasher.

www.sustainableliving.org.nz

It uses **2 units per load**, to 'put a sparkle on the table'. These can be more energy and water efficient than doing the same chore by hand!

www.sustainableliving.org.nz

Keep warm with a 2kw oil filled column heater.

This uses **2 units per hour** of warmth. It's an expensive way to keep warm! (but you can use a timer)

www.sustainableliving.org.nz

Wake to a digital alarm clock's beep.

www.sustainableliving.org.nz

It takes only **0.5 units per week** to run its display and keep time accurately (that's less than 2 cents per day).

www.sustainableliving.org.nz

I have a spa pool to heat and filter.

This ‘good clean fun’ can take up to **10 units a day** to keep it safe and warm enough to sit in any time. That’s equivalent to heating more than two conventional baths per day.

A built in heat pump warms the air.

It moves heat about much as a fridge does, and only needs **0.7 units each hour** in electricity to power it. It gives out 2.5x more heat than using the <u>same</u> power in an oil filled fin radiator or bar or fan heater.