

WHARE ORA

WAIKATO HEALTHY HOMES PROGRAMME

*Helping to create safer,
warmer and drier homes...
one home at a time.*



Waikato District Health Board



KEY TIP

Bubble wrap

Why should I bubble wrap my windows?

- A bubble wrapped window has the same R-value as a double glazed window
- Can be easily removed and put back up again
- Using bubble wrap on a single glazed window can reduce heat loss dramatically
- Leaves no damage – so perfect for rental properties

1 Unroll bubble wrap and place on glass pane. Cut around the edges (to the same size as the glass) with a sharp knife, or draw around the edges and cut with scissors



2 Lightly spray glass with water and stick bubble wrap on flat side down



3 Make sure the bubble wrap is flat against the window by smoothing it out



4 For best results, make sure bubble wrap goes to the edge of glass – this will help to keep the heat in better



NOTE: Using water and vinegar (or warm soapy water) to stick the bubble wrap on can help prevent mould from forming.

KEY TIP

Cleaning mould



What is mould?

- Mould, along with mushrooms and yeast are fungi. In order to grow they need a food source (any organic material such as leaves, wood, paper, or dirt), moisture and a place to grow.

What does mould do?

- When mould reproduces it releases countless tiny, lightweight spores, which travel through the air and can be inhaled. When mould is present you are more likely to have respiratory problems, respiratory infection, allergies or asthma. Mould can also cause skin irritation and allergic reactions.

Easy steps you can take to kill mould naturally and organically using vinegar

- 1** Fill your spray bottle with **70% white vinegar** and **30% water (or warm soapy water)**
- 2** **Spray** over the mould area and **leave for one hour**
- 3** **Spray** over area again. **Scrub** the mould area until clean. You can use a smaller scrubbing brush or cloth to get into tight spaces
- 4** **Wipe** the area down with a clean cloth. This may need to be repeated for stubborn old mould





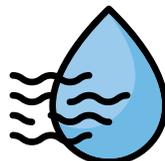
KEY TIP

Dehumidifier

What is a dehumidifier?

A dehumidifier

- is a device which removes excess moisture from the air it can help in damp homes, particularly in the winter
- is not a long term solution
- can extract up to 10 litres of water in the air/home a day (24 hours)
- can help prevent mould and mildew when used correctly (and when home is regularly aired out)
- can have health benefits for families living in damp homes
- can reduce the cost of heating (a dry room is easier to heat)



Is a dehumidifier expensive to run?

- A dehumidifier costs approximately **11 cents per hour** to run equaling \$2.64 over 24 hours

1

- A dehumidifier has two parts:
- Dehumidifier
 - 4 litre tank



2

- Put dehumidifier securely on top of tank, then plug in and turn on



3

- The fan should turn on (you will hear it). Remember to empty the tank as it fills to avoid any spills.



NOTE:

- A dehumidifier is not a long term solution
- Dampness needs to be stopped at the source. If there is water pooling under the home, or there is a leak in the ceiling, these need to be fixed
- Mould needs to be cleaned regularly (a dehumidifier will not get rid of existing mould)

KEY TIP

Healthy homes



1

Open and close curtains

Your windows let heat in during the day. Closing them before sunset keeps the heat in and cold out at night.



2

Stop cold air using draught stoppers

The gaps under doors can let in cold air from outside in winter. Cover the gaps with draught stoppers, or create your own draught stopper using a rolled up towel.



3

Open your windows to ventilate your whare

Air your house out for 15-30 minutes in the morning by opening all of your windows, this will let out some of the moisture that has built up over night, and freshen up the air in your whare.



4

Keep space between sleeping tamariki

Children should have space between them when they sleep to avoid spreading germs and passing on illness. If tamariki are sharing a bed, their heads should be 1 metre apart.



KEY TIP

Heat pumps

How do I run my heat pump efficiently?

- Heat pumps are one of the most efficient types of heating, however many people find them expensive because they do not know how to use them efficiently. Understanding the different settings and how to program them is very important

How much will a heat pump cost to run?

- When used properly (as directed below) for a six hour day, the heat pump will cost (on average) \$2.33 a day
- This means that it can cost between \$60-\$70 a month
- The above calculations are based on a 6kW heat pump

1



Press MODE or MASTER CONTROL button until you have selected the heat (sun) setting

2



Press the FAN button until you have selected the AUTO FAN setting

3



Set the temperature between 18°- 22°C. Setting the temperature higher makes it work harder and is less efficient. Running a heat pump at 26°C will use 50% more power than at 21°C

4



Use the SWING button to adjust the direction of the airflow down into the room

NOTE:

- Indoor temperatures should be above 18°C and above 20°C where babies, sick people and elderly live
- You should clean your heat pump filters monthly (or every two weeks if using it a lot)
- Do not set your heat pump to the maximum temperature, this will not heat the room faster, but will use more energy, costing you a lot more in power

KEY TIP

Portable heater

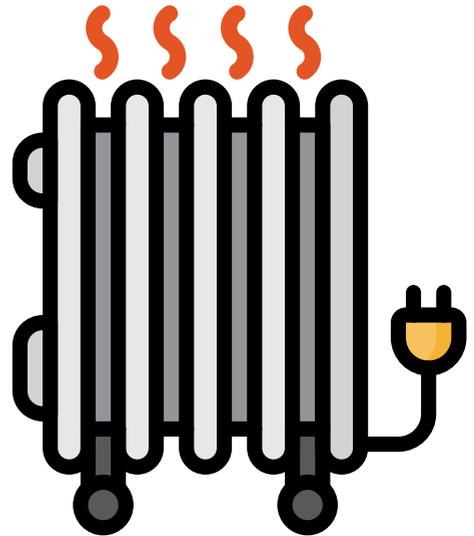


How do I use my portable heater effectively?

- Turn on your heater on before it gets cold
- Make the most of the sun during the day. Open the curtains during the day to let the sun light in, before the sun goes down shut your curtains, and turn on your heater. The heater will not have to be on as long, if your room is already somewhat warm
- Do not have your heater dial turned up to the highest temperature, the heater will try to heat the room to that temperature, and will therefore not turn off when the room reaches a suitable temperature.

Is a portable heater expensive to run?

- Running a 1000w/1kW heater on its highest setting will cost you approximately \$0.28 per hour to run however if you run that same 1000w/1kW heater at half, that will in turn, half the running cost of that same heater (e.g. from \$0.28-\$0.14 per hour to run)
- The same is true for running other heaters (e.g. 1kW, 1.5kW, 2kW etc.) running them at half will in turn half the running cost



NOTE:

- Electric convection heaters warm a room by heating the air around them and rely on natural air currents (i.e convection) to move heat around the room – hence they are good for background heating of bedrooms and small living spaces
- Indoor temperatures should be above 18°C and above 20°C where babies, sick people and elderly live
- Oil free ECO heaters heat up eight times faster than oil filled column heaters – meaning you may not have to use them for as long



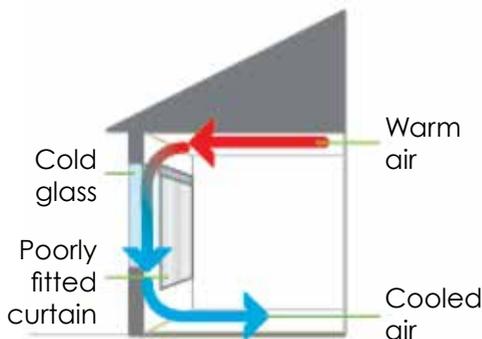
KEY TIP

Separate lined curtains

Can curtains help keep my home warm?

- Curtains can significantly reduce heat loss through windows. A square metre of uncovered window can lose four or five times as much heat as an uninsulated wall
- A third of heat is lost from our homes via our windows, making them an important (and relatively affordable) way to improve the energy efficiency of a home
- However, the way that curtains are hung, the materials they are made from, and the way in which occupants use them will largely determine whether they are effective or not

Warm air moves toward cold glass. Heat is lost through unprotected or poorly protected glass.



Heat is lost

- Poorly fitted curtains lose heat



Heat is trapped

- Well fitted curtains with pelmet trap heat

Curtain design

The air between the curtain and pane of glass needs to be still for the curtains to be effective. This means:

- The gap between the top of the curtain and the window frame should be as small as possible to prevent air circulation around the back of the curtain. A pelmet is ideal but if is ideal but, if not possible, curtains should be closely fitted
- Curtains should be made of fabric with close weave that is lined (so at least two layers)
- Closing the curtain off at the bottom – this usually means floor-length curtains
- Curtains must close well and should have enough fabric in them so that there are no gaps around the edge. Velcro strips can be used to attach the curtain to the window frame or wall
- In the winter, within reason, curtains should be kept closed as long as possible (as long as the sun is not being prevented from shining through). In the late afternoon, curtains should be shut to retain as much day time heat as possible. Curtains should be closed tightly together to eliminate as many air gaps as possible. In the summer, the same principles that apply to keep heat inside the house apply in keeping it out.

Curtain management

It is a truism that curtains are only effective when they are closed. Hence, advising on effective use of curtains for both summer and winter, is also very important:

- **Winter** – Within reason, in cold weather keep curtains and blinds closed as long as possible (and as long as the sun is not being prevented from shining through). In the evening, close curtains in the late afternoon to retain as much day time heat as possible. Take care to close curtains across tightly together to eliminate air gaps
- **Summer** – Window treatment can play an important role in shading and reducing heat gain. Some of the same principles that apply in keeping heat inside the house apply in keeping heat out (i.e. create a still air zone between the window treatment and the window pane – this time to keep as much heat as possible from moving into the bedroom). Light colored, reflective linings will help reflect the sun's heat to the outside



RUNNING COSTS

Household appliances

Heating and cooling

Appliance	Wattage	Running cost (per hour)	Day	Week	Month	Year
Fan Heater	2000	\$0.56	\$2.24	\$15.68	\$67.20	\$818
Column heater (medium)	1500	\$0.42	\$1.68	\$11.76	\$50.40	\$613
Column heater (small)	1000	\$0.28	\$1.12	\$7.84	\$33.60	\$416
Panel heater	500	\$0.14	\$0.56	\$3.92	\$16.80	\$204
Dehumidifier	400	\$0.11	\$0.44	\$3.08	\$13.20	\$161
Fan	100	\$0.03	\$0.12	\$0.84	\$3.60	\$43.80

Based on
\$0.28
per kWh

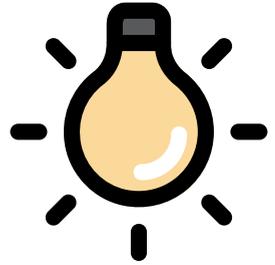
Running
for 4 hours

Running
for 4 hours
daily

Running
for 4 hours
daily

Running
for 4 hours
daily





Lighting

Appliance	Wattage	Running cost (per hour)	Day	Week	Month	Average life (hours)
Incandescent bulb (large)	150	\$0.04	\$0.16	\$1.12	\$33.60	750-1500
Fluorescent bulb (large)	24	\$0.006	\$0.024	\$0.17	\$5.10	6000-15,000
LED bulb (large)	15	\$0.004	\$0.016	\$0.11	\$3.36	At least 20,000

Based on \$0.28 per kWh Running for 4 hours Running for 4 hours daily Running for 4 hours daily Running for 4 hours daily



CONTACT TIME 9am-4pm Monday to Friday

EMAIL WhareOra@waikatodhb.health.nz

PHONE 0800 WhareOra (0800 94273 672)

 **FACEBOOK** Whare Ora



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