Chores, chores and more chores!

The history of technology in the home in north-west Tasmania

Resource book for teachers

BURNIE REGIONAL MUSEUM

Contents

1. Introduction

The resources included in this 'Chores, chores and more chores!' Resource Box comprise objects and images relating to the history of technology in the home in north-west Tasmania.

The history of technology in the home is intimately linked to the routines of daily life, work, and play.

The technology in the home theme provides a wealth of opportunities to explore and compare how over time, different objects and their uses have influenced daily life. The evolution of technology, and the reasons for this, can also be investigated.

These resource materials are designed for Kinder and Years 1, 2, 3 and 5 as well as Year 9. The strongest links are obviously with the History curriculum. Specific links between these resources and the Australian Curriculum have been identified in Section 3.

For each object in the resource box, in Section 4, there is:

- Brief background information
- Several discussion starters/questions/ activity ideas

This information is designed for teachers to read and present as appropriate/interpret to their students.

Section 5 contains worksheets based on the objects and photographs in the 'Chores, chores and more chores!' Resource Box.

Section 6 is a class discussion exploring historical questions and research, the analysis and use of sources and perspectives and interpretations.

Objects and displays within the Burnie Regional Museum which relate to the technology in the home theme are highlighted in Section 7.

Section 8 includes links to online resources which may be useful.

2.

Now that you have your resource box please...

- Check the contents against the inventory when you receive the box and again before you return it. If any objects are damaged or missing, please notify the Burnie Regional Museum immediately so that they can be repaired or replaced.
- Handle objects with care.
- When removing objects from the box, place them on clean areas clear of pencils, pens, paint, water and anything else that may contaminate them.
- Do not leave the objects unattended unless you are sure anyone handling them understands how to treat the material.
- Display the photographs using book/music stands or 'Blue-Tac'. Please don't use drawing pins or any other material to pierce the photographs.
- Return your box on time, as the next borrowers are also keen to take delivery of their resource box.
- Please note: This box is for use in your classroom only and should not be passed on to other staff at your school. As the teacher responsible for this box you will be held accountable for any damage or loss of objects.

3.
Curriculum Links Matrix

The following links have been identified between the objects, photos and stories in the 'Chores, chores and more chores! The history of technology in the home in north-west Tasmania' Resource Box and the Australian Curriculum from Foundation, Years 1-3, to Year 5 as well as Year 9.

Year Level	Resource Box Grouped Activities	Curriculum Link	Related Elaborations
Foundation	Entire Box Activities (History)	**ACHHK004:** How the stories of families and the past can be communicated, for example through photographs, artefacts, books, oral histories, digital media and museums.	**2:** Sharing the story of an object from home, describing its importance to the family (for example photographs, old toys, statues, medals, artwork, jewellery) and creating a class museum.
Year 1	Entire Box Activities (History)	**ACHHK030:** Differences and similarities between students' daily lives and life during their parents' and grandparents' childhoods, including family traditions, leisure time and communications.	**1:** Examining and commenting on photographs and oral histories (for example talking to parents, grandparents and other elders) to find out how daily lives have changed.
Year 2	Entire Box Activities (History)	**ACHHK046:** The impact of changing technology on people's lives (at home and in the ways they worked, travelled, communicated, and played in the past).	**1:** Examining changes in technology over several generations by comparing past and present objects and photographs, and discussing how these changes have shaped people's lives (e.g. the introduction of television, transistors, FM radio and digital technologies).
Year 3	Entire Box Activities (History)	**ACHHK061:** ONE important e.g. of change and ONE important e.g. of continuity over time in the local community, region or state/ territory; for example, in relation to the areas of transport, work, education, natural and built environments, entertainment, daily life.	**1:** Investigating a development in the local community from the time of European settlement to the present day (for example through photographs, newspapers, oral histories, diaries and letters). **2:** comparing photographs from both the past and present of a specific location to identify the nature of change or continuity (that is key similarities and differences).

Year Level	Resource Box Grouped Activities	Curriculum Link	Related Elaborations
Year 5	Entire Box Activities (History)	**ACHHK094:** The nature of convict or colonial presence, including the factors that influenced patterns of development, aspects of the daily life of the inhabitants (including Aboriginal Peoples and Torres Strait Islander Peoples) and how the environment changed.	**1:** Investigating colonial life to discover what life was like at that time for different inhabitants in terms of clothing, diet, leisure, paid and unpaid work, language, housing and children's lives'.
	Doing the Laundry – Blue Bags(Science)	**ACSSU080:** Light from a source forms shadows and can be absorbed, reflected and refracted.	**4:** Recognising that the colour of an object depends on the properties of the object and the colour of the light source.
Year 9	Entire Box Activities and Federation Street (History)	**ACDSEH090:** Living and working conditions in Australia around the turn of the twentieth century (that is 1900).	**1:** identifying the main features of housing, sanitation, transport, education and industry that influenced living and working conditions in Australia.

4.
What is in the box?

Before outlining what is in the box, it is important to consider what isn't in there.

There are no items or objects in the box which relate to how Tasmanian Aboriginal people in the north-west of Tasmania used technology for preparing and cooking food, cleaning, making and repairing clothing and doing other household work. This is because the Burnie Regional Museum does not hold examples of these items in its collection.

The types of home technology objects used by Aboriginal Tasmanians in this region would have included stone tools, woven fibre bags and baskets for collecting and storing food, and animal skins for clothing and bedding.

Discussing the types of technology used by Aboriginal Tasmanians is important. This will ensure that students develop a complete understanding of this topic i.e. not just from a European perspective.

Doing the Laundry

The worst household task was doing the washing yet it was also the task that had the least innovation and mechanisation in the 1800s and early 1900s.

While a range of ingenious devices were offered to alleviate the burden of cooking and sewing it was only with the spread of electric washing machines that the work involved in 'doing the wash' changed significantly. Even then many traditions persisted, particularly washing on Monday, following the only day of rest on Sunday.

AC Link
(Year 1 History ACHHK030);
(Year 2 History ACHHK046)

Washboard

Washboards like these were used with soap and water to scrub stubborn stains from clothing. The corrugated panel of this one is made from glass but some were also made from wood.

More information can be found at:

www.oldandinteresting.com/washboards-history.aspx

www.oldandinteresting.com/history-of-washing-clothes.aspx

- What are some other ways we can remove stains from clothing?

Blue bags

Bags containing blue dye were used in the washing process because the soaps used at the time turned white clothing yellow.

Adding a trace of blue dye made clothes look less yellow because it increased the amount of blue light that they reflected, thereby 'cancelling out' some of the reflected yellow light and making clothes appear whiter.

More information can be found at:

www.oldandinteresting.com/laundry-blue.aspx

AC Link
(Year 5 Science ACSSU080 Elab 4)

This is a tricky concept to understand (even for adults!) It could lead into a discussion about complementary colours (blue and yellow are complementary colours and this is partly responsible for the 'cancelling out' effect)

There are lots of colour mixing activities which could be done with paint, dyes, food colouring but that won't explain the optical brightening phenomenon.

Pegs

Firmly attaching the washing to the line was important to prevent carefully washed clean clothes ending up in the mud!

Given the difficulties of washing before washing machines were invented (i.e. collecting wood for the fire to heat the water, scrubbing clothes, wringing them out with a mangle, hanging them up) having to repeat this process if clean clothes fell in the mud was not an attractive option! Therefore, a good reliable peg was an important part of household equipment. Manufacturers and individuals produced an array of possible solutions to the problem of firmly attaching washing to the line.

For some examples of commercial and hand made pegs see: www.powerhousemuseum.com and search 'clothes pegs'

Clothes lines were commonly a wire strung between two poles and then propped up with another piece of wood. All too often the poles might fall over or the line broke pitching clean clothes into the mud.

AC Link
(Year 3 History ACCHK061 Elab 1 and 2)

Washing day at Sampson property Upper Caboolture c. 1925
State Library of Queensland.

- Make a collection of different types of modern pegs. Compare and contrast them with the old pegs. Discuss the advantages and disadvantages of each type of peg.
- Try sketching one peg from two or more different perspectives.
- Research the history of peg dolls and then make one. There are plenty of images/ information/ideas online.
- Do you have a washing line? What does it look like? If you have a washing line that turns it is called a rotary clothes line. Why do you think most people now have washing lines like this and not a single line? 'Hills Hoists' (height adjustable rotary clothes lines) have been manufactured in Australia since 1945 and are a fixture in many Australian back yards. The Hills Hoist is listed as a national treasure by the National Library of Australia.
- List three reasons why rotary clothes lines are better than single line washing lines.
- What other methods do people use to dry washing, both here and in other countries?
- Ask students to choose drying washing using either a washing line or a dryer. Write a list of reasons or a short article in the form of persuasive text (e.g. I strongly believe using a clothes dryer is better than a washing line because...) as to why they think their method is the better option. (en.wikipedia.org/wiki/Clothes_line lists lots of advantages and disadvantages for each method).

Iron

Ironing was much more complex a hundred years ago than it is now. Most people did not have electricity, so flat irons required heating on wood or coal stoves. As their name suggests, irons were made from cast iron because the material stood up to being in contact with naked flames.

The temperature of the iron was hard to control; it couldn't be too hot or it would scorch the clothes, too cold and it wouldn't do the job.

Soot from the fire had to be cleaned off in case it stained the clothes. The metal conducted heat and there was always the danger of burning your hands. It was sweaty, tiring and time-consuming work.

More information can be found at:

www.oldandinteresting.com/antique-irons-smoothers-mangles.aspx

- Lift up the iron. How does it feel? Can you estimate how much it weighs? Check your estimate using a pair of scales.
- Sketch the iron. Try sketching it from different perspectives.

Here are abridged directions for ironing from a booklet called *Approved Methods for Home Laundering* published almost a hundred years ago by Proctor & Gamble.

Ironing

Ironing is the finish of good laundry work and the test of the laundress.

A laundress's test for a hot iron is to hold it near her cheek for a few seconds. If too hot for this, it is too hot to use.

Another test is to touch the bottom of the iron with a wet finger; if it hisses, it is hot—the shorter the hiss, the hotter the iron.

Shake or stretch the article to be ironed into shape and place on board. Iron with the right hand from right to left, using the left hand to arrange the material.

First iron the part that will wrinkle least, leaving the plain, straight parts until the last. Ruffles and trimming should be ironed first.

Best results are attained when the iron follows the long warp thread of the material. The cloth should be left dry, especially bands, hems, and seams, or they will wrinkle.

For heavy materials use heavy irons; for thin materials, lighter irons, and for gathers, a narrow, pointed iron. Iron quickly with an iron hot, yet not hot enough to scorch. If the material becomes dry, dampen it with a soft cloth.

Potato masher

This is a homemade wooden potato masher. It is an example of the 'make-do' culture that existed in Burnie 100 years ago, when many household items and tools were handmade.

- How does this potato masher differ from potato mashers today? Which design (this one or a modern one) do you think would be more efficient? Why?
- **Class activity:** Test out potato mashers from home. How fine is the mash? Which one works best?

Hot-water bottle

This hot water bottle is made from earthenware because rubber that could withstand high heat was not easily available at this time.

Earlier types of bed warmers were long handled metal pans into which hot coals from the dying embers of the fire were placed. These worked quite well but sometimes they would scorch the sheets or fill the bed with fumes. They also needed to be removed from the bed before you climbed in (unlike the water filled bottles).

In even earlier times wealthy people had servants who would hop into their beds to warm them up before they got in!

More information can be found at:

www.oldandinteresting.com/bed-warmers.aspx

- Do you warm up your bed in winter? What method do you use? Conduct a class survey to find out the most popular way to warm up beds.
- Choose one method of bed warming (past or present) and make up an advertisement promoting its good points. Why should someone buy your bed warmer? Why is it better than other options? Include a drawing of it.

Butter pats

Making your own butter used to be a common household task. Butter was made by beating cream (often in a butter churn) until it formed into butter. Wooden spatulas/paddles called 'butter pats' were often used for manipulating the butter.

They were used in various ways - as scoops for taking butter from the churn, to kneed, stir, cut, slap, and lift. They could be used to cut and shape the butter into a block, and then mark the top with a design of crosses or grooves. Or they could be used to press butter into a mould.

In grocers' shops in Britain the butter pats or 'hands' were used well into the 20th century to cut a piece of butter from a large block, on request from a customer. In the kitchen they were used to make individual butterballs (by rolling a small lump around between the two wooden pats) for serving at the table.

More information can be found at:

www.oldandinteresting.com/butter-crocks-history.aspx

- Try making your own butter.

1. Half fill a clean plastic jar with double cream. Add a pinch of salt for taste. Add a glass marble to help with the mixing.
2. Shake the jar for about 10-15 minutes (you may need to get a friend to help if you get tired). Eventually the cream will separate into a lump of fat and milky liquid.
3. Take out the lump and put it on a paper towel. Wrap the towel around it and squeeze out any excess liquid.
4. The lump you have made is butter. Put it in a dish in the fridge and spread it on some bread.

How it works: Cream is a mixture of tiny blobs of fat spread evenly through a milky liquid. When you shake the cream the tiny blobs of fat bump into each other. The more you shake the more they bump and join together. Eventually they turn into butter.

- What happens if you don't use the marble? Try this experiment again using two jars, one with a marble and one without. Start shaking the jars at the same time. What happens? Why?

Butter mould

Once the butter had been made it was usually pressed into a mould. If made commercially a pattern would sometimes be stamped or cut into the block for aesthetics or to indicate its source.

- Ask your grandparents or great grandparents if they can remember making butter.
- Draw a design that you could stamp on your block of butter. Is it an abstract design or does it include elements that will tell people about you/the source of your butter?

Butter-moulds, or wooden stamps for moulding fresh butter, are much used, and are made in a variety of forms and shapes. In using them, let them be kept scrupulously clean, and before the butter is pressed in, the interior should be well wetted with cold water; the butter must then be pressed in, the mould opened, and the perfect shape taken out. The butter may be then dished, and garnished with a wreath of parsley, if for a cheese course; if for breakfast, put it into an ornamental butter-dish, with a little water at the bottom, should the weather be very warm.

Isabella Beeton,
Book of Household Management, 1861

Mystery object

- What do you think this object is? Why?
- Imagine you work in a museum and you have found this object in the collection. It has no information with it, how would you find out what it is?

This is a candle mould, see http://from.ph/260799

Today we use candles for celebrating birthdays or when the power goes off. However, before electricity was invented, candles were incredibly important – without candles and lanterns there was no portable source of light after the sun set.

Candles were originally made from the fat of animals which is called tallow. This has a very strong and unpleasant smell when it burns. Beeswax was also used and this had little odour but it was limited in quantity and relatively expensive. More recently petroleum derived waxes, such as paraffin wax, have been used to make candles.

There are two main methods for making candles – moulding or dipping. Moulding is much easier and faster. The other option is to dip the wick repeatedly into hot wax.

A good summary of the history of candle making can be found on the following website:

www.history.uk.com/history/candle-making-jess-dyde/

You may like to have a go at making candles with your students. There are plenty of websites which will explain the process, two examples are provided below. Please note:

- Many websites suggest using old crayons to make candles. Some crayons have fire retardant in them and so the candles will not burn. Crayons may also have chemicals and dyes that give off unpleasant and unhealthy fumes when they are burnt. Better options are to use paraffin, soy or beeswax (although beeswax is relatively expensive).
- Melting the wax in a tin/old saucepan that sits in a water bath is a much better and safer option that placing the saucepan with the wax directly on a hotplate.
- Supervise children carefully around stoves and hot wax.

www.kidspot.com.au/kids-activities-and-games/Science-experiments+10/Make-a-candle-experiment+10986.htm

www.education.com/activity/article/dipped-candles/

5.
Worksheets

The following worksheets can be used in conjunction with the objects and photographs in the resource box.

Wages day

Imagine you are a servant in a large home in Burnie.

You are employed for a 10-day shift and you will be paid in one of the following ways:

a) $6 per day

b) $3 on odd numbered days and $9 on even numbered days

c) Day 1: $1, Day 2: $2, Day 3: $3 and so on

d) Day 1: $1, Day 2: $1 and the sum of the previous 2 days for each day afterwards

e) Day 1: 10 cents and for each day afterwards double the amount of the day before

f) Day 1: $1, Day 2: $3 and $3 less than the total paid so far, for each day afterwards.

Choose a method of payment.

Which method do you think pays the most?

Which do you think pays the least?

Fill in the chart below and compare

Did you make the right choice?

Day	A	B	C	D	E	F
1	$6	$3	$1	$1	10c	$1
2	$6	$9	$2	$1	20c	$3
3	$6	$3	$3	$2	40c	$1
4						
5						
6						
7						
8						
9						
10						
Total						

Everyone needs a...

Make up a newspaper advertisement for a new type of peg, iron or a washing machine that you have invented.

- Include an illustration of your invented object, highlighting its good points and explaining why they are so good
- How would you promote it or encourage people to buy it

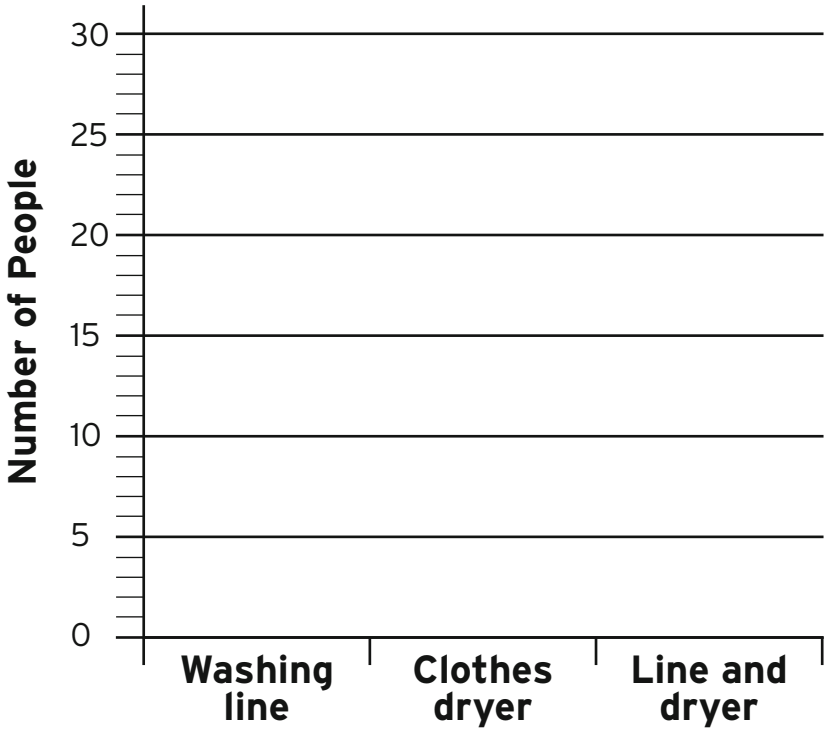
Have a look at ads in current newspapers and catalogues to give you some ideas

Dear diary...

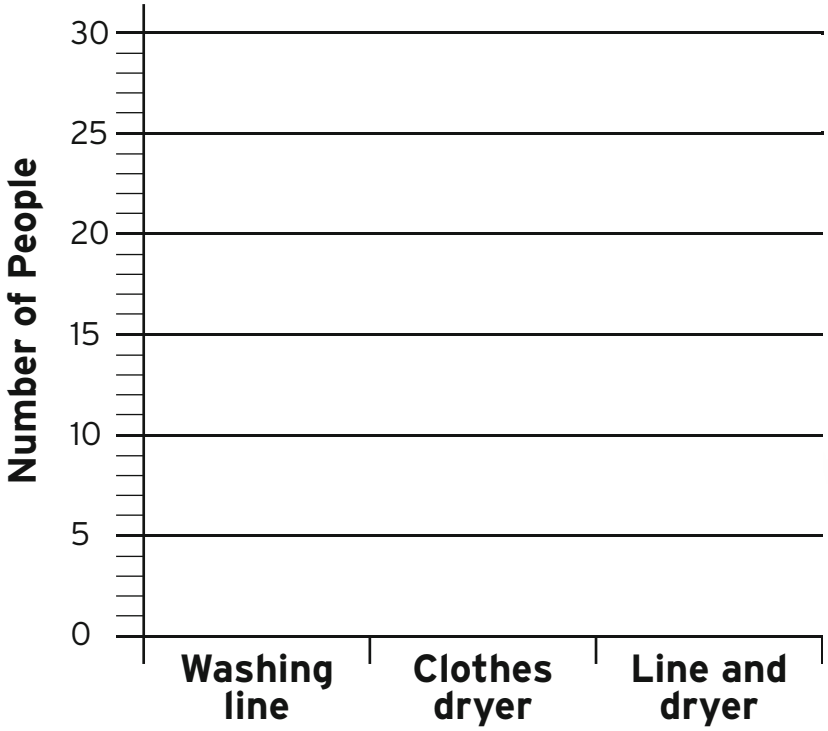
Imagine you are a maid in a big home in Burnie. Write some diary entries detailing what sorts of jobs you have to do, if there are any disasters (e.g. burnt ironing, washing falling off the line and into the mud). What chores do you like and which ones do you dislike doing? Why? What do you like to do on your days off?

Drying your clothes

Survey each person in your class and ask how they dry their clothes at home.
Draw a bar graph of the results below.



Ask each person in the class to ask a grandparent or great-grandparent how they dry their washing?
Draw a bar graph of the results below.



What's the difference?

Fill in the table below showing the differences between a single line clothes line and a rotary clothes line.

Ratings for some categories may vary between people.

- Add some more things to compare in the left hand column.
- Add a different method of drying clothes (e.g. clothes drier) and rate it in the right hand column.

	Single line clothes line	Rotary clothes line	
Cost to buy	low	medium	
Chance of washing falling into the mud			
Speed of drying clothes			

6.
Unearthing history – a class discussion

The following questions could be used to prompt a class discussion.

- What are some of the different ways we can find out about the past? Hint: what sorts of things are in the resource box e.g. objects/artefacts, documents, images...
- In terms of telling us about the past, is the information we obtain from paintings different to that from photos? Why?
- What sorts of things will we leave behind for people to find out about us?
- What about when technology changes? (e.g. video, audio tapes, records etc). Will people in the future have the tools to unlock all parts of the past?
- If you could choose 5 objects/images/ documents to leave behind to give clues to someone in the future about you and your life, what would these 5 things be?
- Perhaps you could bury a time capsule at home or at school? See paleofuture.gizmodo.com/what-is-a-time-capsule-1531521900 for ideas and information about different kinds of time capsules around the world. The International Time Capsule Society also has good ideas, see crypt.oglethorpe.edu/international-time-capsule-society/

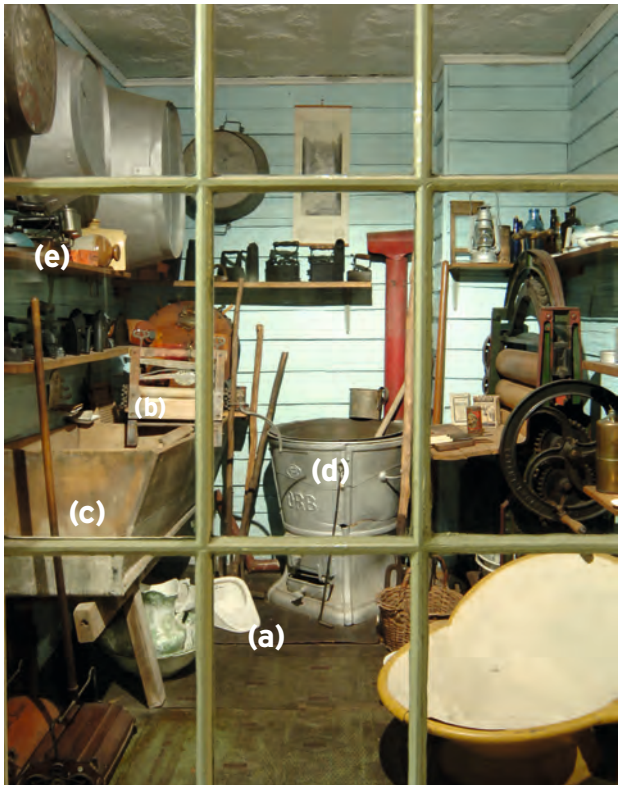
7.

Extending the learning – come and visit the Burnie Regional Museum

The understandings developed from this 'Chores, chores and more chores' Resource Box can be extended by a visit to the Burnie Regional Museum. See www.burnieregionalmuseum.net/visit for details about bookings, logistics, costs and support for museum visits

Some of the objects within the Museum collection which relate to the 'technology in the home' theme include:

Laundry



a) Chamber pots

One hundred years ago, most toilets were in an outhouse separate from the main house. To prevent a trip outside in the cold and dark in your bedclothes, chamber pots were kept in the bedroom under a bed or in the cabinet of a nightstand and were used as a urinal at night.

b) Mangle

The mangle was a mechanical laundry aid consisting of two rollers in a sturdy frame, connected by cogs and powered by a hand crank. It was used to wring water from wet laundry. There was no spin cycle on the washing machine in those days!

c) Wash trough and

d) 'Washing machine'

Clothes were washed by boiling them in this cast iron fire-box. A wooden stick with three or four prongs called a 'dolly' was used to agitate the clothes by hand. This action is done by a washing machine today. The pine wash trough was also used for washing clothes. The scrub boards, with their corrugated panels, were used in the wash trough for scrubbing stubborn stains.

e) Kerosene fuelled irons

Can you imagine using an iron with an open flame in the base? These irons had some advantages over irons from previous years. They have a smooth, easy to keep clean chrome ironing plate, a wooden handle that would not burn your hands and are much lighter than a cast iron coal filled model. The little tank behind the handle holds the kerosene that fuels the iron.

Parlour

a) Coal scuttle

Coal was burned like wood to produce heat. The coal scuttle was used to hold coal and was taken outside to fill. The scuttle and a small shovel were essential equipment for any house as loose coal is very dirty to handle.

b) Fire bellows

A century ago, the main energy source readily available in Burnie with which to cook and keep warm was wood, and there was an abundance of it. Wood (or coal) was burnt in open fireplaces. A pair of bellows was used to puff blasts of air into the fire, to supply it with oxygen so that it would burn strongly.

Kitchen

a) Hot water fountain

An improvement in the last half of the 19th century was the hot water 'fountain'. This was a large kettle that had a tap instead of a spout and sat on the hob or the stove. It provided several gallons of boiling water, enough for a large wash-up or the weekly bath.

Even though the hot water fountain was an improvement on a kettle, the water level still had to be constantly monitored. If it was allowed to boil dry, the fountain would crack and could never be repaired.

b) Cast iron boiler

This cast iron boiler was used to cook over the open fire. It is made from cast iron because this material can withstand being in direct contact with flames.

The kitchen would have had a high open fireplace and deep hearth. The pot has a handle so that it could be hung over the flames on a pole embedded in the hearth. By the 1870s, stoves began to replace cooking over the open fire.

8.
Useful links and resources

The resources below provide some useful links to online images related to the technology in the home theme.

http://trove.nla.gov.au
National Library of Australia – online images, historic newspapers, books maps, music, archives and more.

http://museumvictoria.com.au/bfa
Museum Victoria, 'Biggest Family Album' contains over 9 000 photographs from rural and regional Victoria dating from the 1890s to the 1940s. These images provide insights into domestic and working life, education, recreation, travel, settlement and much more.

www.powerhousemuseum.com/collection/database/menu.php
Search 109,756 objects collected from 1880 to the present day. The interactive database contains thousands of zoomable images and research into the Museum's collection.

www.scootle.edu.au
Scootle provides digital resources for teachers and students mapped to the Australian curriculum.

www.myplace.edu.au
On this website you will find educational material to support teachers using the 'My Place' TV series in the classroom. Explore background information, aligned with the My Place stories, on events and people significant to Australia's history.

www.visiblethinkingpz.org/VisibleThinking_html_files/VisibleThinking1.html
'Visible thinking' is a flexible and systematic research-based approach to integrating the development of students' thinking with content learning across subject matters.

Visible thinking has a double goal: on the one hand, to cultivate students' thinking skills and dispositions, and, on the other, to deepen content learning.

Thinking dispositions include: curiosity, concern for truth and understanding, a creative mindset, not just being skilled but being alert to thinking and learning opportunities and eager to engage with them.

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