



National Certificate of Educational Achievement
TAUMATA MĀTAURANGA Ā-MOTU KUA TAEA

Exemplar for Internal Achievement Standard Home Economics Level 2

This exemplar supports assessment against:

Achievement Standard 91302

Evaluate sustainable food related practices

An annotated exemplar is an extract of student evidence, with a commentary, to explain key aspects of the standard. It assists teachers to make assessment judgements at the grade boundaries.

New Zealand Qualifications Authority

To support internal assessment

	Grade Boundary: Low Excellence
1.	<p>For Excellence, the student needs to comprehensively evaluate sustainable food related practices.</p> <p>This involves determining the significance of the social, economic and environmental implications of those practices and drawing justified conclusions.</p> <p>This student has evaluated the sustainable food related practices of picking and preserving berries.</p> <p>The student has determined the significance of the social implications of the practices as part of drawing a justified conclusion (6). The benefits have been evaluated with clear links to the family and community well-being (2) (3) (4). Evidence has been provided to support the social implications. Some consideration has been given to the limitations: possible lack of time (1) and knowledge (5).</p> <p>For a more secure Excellence, the student could give more consideration to the possible social limitations, and the need to balance family and social needs when determining how sustainable practices are.</p>

‘Buying raspberries locally’

Social implications – only one implication has been exemplified.

You can preserve raspberries, picking them when they are in season, freezing them to use in the winter for jam making, hot puddings, raspberry sauce or even a cold dessert such as Pavlova. This allows you to have the great raspberry taste all year round.

Picking berries is not only a sustainable practice, it allows you to spend time as a family, is a source of education for the younger children and the community. A negative effect on your social well-being is that many families today have parents who are working long hours even throughout traditional holidays and weekends. This would limit the chances of a family being able to interact while picking berries. Full time working parents do not need the added stress of spending time picking fruit. 1

Picking your own berries and making jam could show younger generations that food does not always come from a packet. Many young people do not know what to do with fresh fruit and vegetables and so some towns have started to focus on ways to revive these essential skills. The Nelson Environment Centre has partnered with a top local chef to try and involve local kids in preparing and enjoying local fresh produce. Luke Macann, says ‘Fresh Food for Life has been a rewarding project that we hope will gain momentum with the support of other chefs and community members, all of whom stand to gain mana and satisfaction by introducing children and young adults to the simple pleasures of cooking and the importance of a healthy diet’. 2

Making jam shows younger generations what homemade jam tastes like without additives and preservatives. The jam we made in class tasted of fruit, had 15% more fruit when compared to the bought jam – it contained less sugar and was a brighter red colour. The bought jam had gelling agents and acidity regulators as well as some preservative in it. These chemicals are used to help keep the food fresh, maintain the flavour and to make the product cheaper – less fruit is needed. We knew what ingredients were in our jam, whereas the bought jam had been made from local and imported ingredients so fruit from overseas could have been used. Some people may not like the taste of freshly made jam as the flavour is stronger and they may be used to the taste of bought jam. 3

Families could spend more time preparing and sharing food together, they would be able to share their new found knowledge and recipes with neighbours even the community. Having someone such as a grandparent who is experienced in making jam will ensure that the inexperienced people are more likely to be successful when they make jam. To ensure the foods are not wasted and jam making is a success means you must have knowledge of what fruit is suitable, how ripe it must be, how much sugar is needed and how long to boil the mixture to get the jam to set. Also knowledge is needed of what jars are suitable to recycle, how to sterilise them and how to cover and store the jam so it is safe to eat. Preserving this fruit could form new relationships between people and form stronger bonds as they would become closer and overall value spending time together. Any opportunity that involves people sharing food or practices will enhance family and community well-being. 4

Learning how to preserve food and make jam is becoming increasingly popular as people want to know where their food is coming from, what the ingredients in their food are, have they been naturally produced without herbicides and pesticides. This is a start to reviving 5

traditions and passing on knowledge from one generation to another. Family recipes, family cookbooks and a family garden will all help to support developing sustainable practices and giving some control back over their food choices. Christchurch City Councillor Peter Beck talked about creating community gardens on some of the red zoned land to provide food – 'As well as making good use of the land, these are positive projects which lift our spirits, build community and fill our food baskets!'

Overall making raspberry jam is a sustainable practice as it allows families to interact with each other, make new traditions, and learn to value spending time with each other. As Annabel Langbein says, food is about 'discovering simple pleasures through exploring your creativity, connecting with nature, and sharing food and laughter with family and friends.'

Collecting and preparing local foods will enhance social well-being when exploring local food producers, farmers markets and so on. Families may begin to value eating natural and healthy foods as they are now gaining the highest quality for the price they pay.

	Grade Boundary: High Merit
2.	<p>For Merit, the student needs to evaluate, in depth, sustainable food related practices.</p> <p>This involves determining the value, and providing evidence of the social, economic and environmental implications of those practices.</p> <p>This student has determined the value of the sustainable food related practices of sourcing and preserving local strawberries, supported by evidence.</p> <p>The economic benefits for the community (1) and the family (4) and have been determined supported by evidence from visiting the farm and purchasing fruit. The economic limitations (5) have been briefly described.</p> <p>The social benefits have been determined, linked to family traditions and well-being (2). Evidence from the practical activity of making jam highlights the benefits of this practice compared to ready-made products (6).</p> <p>The environmental benefits of reducing food miles and using less fuel have been considered, with some examples provided (3).</p> <p>To reach Excellence, the student could draw a more justified conclusion. The significance of the social implications has been explained (2) (6), but the value of this needs to be determined, balanced with the economic and environmental factors. The statement '<i>balanced with family priorities and available money</i>' (7) needs further explanation.</p>

'Buying food/fruit from local producers'

The fruit that is sold locally; the money goes back into the community. Fruit plants are also available locally. This also creates jobs within the community – for example our local berry farm that we visited employs casual staff for the picking and packing season. 18 part time employers compete for staff when the fruit is in season from the beginning of November to the end of February.

1

At our local berry farm, you can pick your own fruit. This means that you can go round with a tip top container which they provide for you, and you pick your own fruit. I think this is a good idea as you get to see the quality of the fruit. You also get the experience of getting to see what it is like to grow and pick your own fruit. You can take the whole family to pick fruit. Doing this may bring back family traditions and happy times e.g. collecting blackberries from the side of the river while on a camping holiday; also making your own jam. You might have a traditional family recipe that you can use to make strawberry or raspberry jam. Also you might feel a sense of accomplishment that you have made your own jam, if you haven't made it before. Fewer chemicals may have been used for growing the fruit so you are also getting maximum nutrients. You can check with the grower when you are getting your berries.

2

Picking your own fruit from the local berry farm also reduces the amount of food miles. This means the amount of kilometres the fruit has travelled to get to its destination. So if they travelled five kilometres to pick the fruit and 5 kilometres back home; that is the distance the fruit has travelled. The closer you live to the berry farm the less fuel you use. This also helps your income; the less fuel you use the more money you have to spend on local fruit. Doing this you are reducing the carbon foot print which is the amount of carbon dioxide that is released into the air.

3

One economic implication to do with buying fresh fruit is money. The cost of buying fresh fruit from the local berry farm is cheaper than the supermarkets, particularly if you live in the country near to a berry farm like we do. For example 1kg of strawberries is \$9, whereas at the supermarket 1kg of frozen berries is \$14 Jam strawberries are even cheaper – about \$5 a kg. This is because the fresh fruit has travelled less food miles. If you buy fresh strawberries in bulk, you can save more money and also you can make more homemade jam. The best time for buying fresh fruit in bulk is when it is in season and in plentiful supply.

4

There are also some limitations on buying fresh fruit if you live in a city. The cost of travelling to the country to pick and buy the fruit is considerable. It is often cheaper to buy the fruit from the local supermarkets because it is closer to your home and you don't have to pay the extra for gas thus reducing the impact on the environment.

5

Homemade jam tastes nicer than store bought jam because store bought jam contains more preservatives and less fruit than home-made jam. The jam we made in class had at least 50% fruit whereas the store bought varies between 11% to 40% fruit. Store bought jam has sugar as the first ingredient on the list and sometimes also contains glucose syrup so homemade jam tastes fruitier and less sweet. We also know what ingredients went into our jam – fruit and sugar whereas the list on the store bought jam included gelling agents (440), and acidity regulators (330, 170). Some jams also include residual preservatives (224) to

retain the colour of the fruit. This means the homemade jam is a better choice for our health as it contains less sugar and fewer additives. The label on the bought jam also stated 'Made in NZ from local and imported ingredients'. This means we do not know the origin of the fruit and ingredients used to make the bought jam; which means we have no knowledge of what chemicals are used in the soil or on the fruit as it is grown in another country.

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I believe preserving strawberries by making them into jam is a sustainable practice if we all start buying fresh local berries or start growing our own. For people to start doing this, they have to know how much time it does take. Planting, growing, picking, selling; this has to all be balanced with family priorities and available money. You may also give some as gifts which gives you a sense of achievement.

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	Grade Boundary: Low Merit
3.	<p>For Merit, the student needs to evaluate, in depth, sustainable food related practices.</p> <p>This involves determining the value, and providing evidence of the social, economic and environmental implications of those practices.</p> <p>This student has determined the value of the sustainable food related practices of buying locally grown food, and provided evidence to support the social benefits (1) (3) and limitations (4) (5). Links to individual and community well-being have been included.</p> <p>The economic implications have been considered, with some evidence provided to support the benefits, including links to community well-being (2) (7).</p> <p>The environmental implications have been considered with some examples provided (6).</p> <p>For a more secure Merit, the student could provide more detailed examples and evidence to support the environmental implications. More evidence could be included to support the economic implications, showing how locally grown food is beneficial to the individual and the family.</p>

'Buying locally grown food'

There are many social benefits to locally sustaining food. Farmers markets allow you to see a person who has grown your food face to face; this allows you to ask them questions about what chemicals they have used on their fruit and vegetables etc. By doing this you are able to find out useful information about what you are putting into your body and what effects it has on you – 'the food is clean, cheaper, better for you, has more flavour and you are giving back to the community'. Gathering in season food to preserve can be done with family and friends, members of the community or a new group of people. Gathering allows you to make conversation and get to know people better; it is a social benefit and brings the community closer together. Swapping the fruit and vegetables you have gathered or swapping things you have preserved is also a great social benefit for the same reasons as gathering, it brings friends and family together and you can meet new people.

1

You can also gather some fruit like apples from the road side and it is free. This means your bottled or frozen apples are less expensive like when you swap produce. When buying fresh in season fruit and vegetables off a reliable source such as your neighbour or someone in the community you are not only benefitting yourself but also them. They are supplying you with fresh fruit and vegetables and you are keeping them in business and keeping the money in the community which benefits everyone. For example, a local organic farmer came and talked to us. He and his wife are well known around the community because of the wonderful fresh food they supply to people in the community. His wife sells cherry tomatoes and basil to the local café and various other businesses around the community and also keeps some for them. This keeps them happy and locals happy; they have a huge fan base due to the food they produce affecting their social life hugely.

2

Gardens are another great way to bring people in the community closer together. Whether they are communal gardens or home gardens, people can gather in them and swap goods, gather goods, meet new people and spend time with each other. 'Making gifts such as jam made from the fresh fruit you have gathered and preserved is a fantastic idea for Christmas and birthdays. Friends and family will really enjoy the thought and effort that has gone into every part of the jam and the tasty jam itself'. Whether you are gathering food, swapping food, preserving food, making gifts or all of the above you are benefitting yourself and your local community in a social way.

3

A limitation of sustaining food is that when preserving in season foods for when there is less or none, you are spending time preserving when you could be spending time doing other things like helping your kids with homework or reading them stories.

4

Other limitations could be you don't have the skills to preserve or you don't know anybody in the community to do it with you and help you learn the skills. For example we had the advantage in class of having our teacher show us how to make jam, show us how long to boil it for and how to test if it will set. You could waste produce through unsuccessful attempts at jam making so it is really important to know what you are doing.

5

Buying locally has a huge impact on the environment. Gathering fruit and vegetables from a local garden is fantastic. This saves you money on the food itself and also on petrol and bags at the supermarket. By gathering locally you are able to take your own bags instead of

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buying and using plastic bags. Packaging is expensive; buying local means less packaging or recycled packaging. For example, people who have hens and sell their eggs from home, reuse egg cartons that people have given them or ones they have collected themselves over the years. Not only is packaging expensive it is bad for the environment. However when you preserve your own food at home e.g. bottling tomatoes or freezing them to use in the winter, you often use recycled materials to package them like glass preserving jars or plastic containers for freezing. Buying food locally cuts down on food miles; this means there isn't as much pollution going into the air from all the travelling your food has done to get to you.

Organic and ethical food tends to cost more. This is a huge limitation considering that it is better for you. 1kg of 'fresh produce, pure fresh organic carrots costs \$6.49' whereas '1kg of fresh produce carrots that are loose cost \$1.99.' Even 1kg of McCain's mixed vegetables with carrots, cauliflower, broccoli and peas for \$4.79 is cheaper than organic carrots from the supermarket (6).

	Grade Boundary: High Achieved
4.	<p>For Achieved, the student needs to evaluate sustainable food related practices.</p> <p>This involves determining the value of sustainable food related practices by considering the social, economic and environmental implications of those practices.</p> <p>This student has determined the value of the sustainable food related practices of preserving locally grown food, by using detailed examples to consider the social (3) (4) (5), economic (4) (5) (6) (7) and environmental implications (2) (5) (7).</p> <p>Connections to individual, family and community well-being have been included (2) (8). Some evidence has been used to support the evaluation of the environmental implications (1) (6).</p> <p>To reach Merit, the student could provide more evidence to support the benefits and limitations of the economic and environmental implications.</p>

'Preserving locally grown food'

Preserving food in season and locally has many personal benefits that can help to make it a sustainable practice for our environment. People who buy local food are reducing food miles. 'Food miles refers to the distance a particular food has clocked up on its journey to your shopping basket' (Ethical Shopper, Niki Bezzant). You are not travelling a further distance to the supermarket and saving money in fuel which means less greenhouse gas going into the environment.

1

Preserving food has benefits and limitations economically, environmentally and socially. First knowing the source of your food makes you happy and makes you feel good about eating the product. Local food is better for you as it is fresher than processed food and has less sprays or chemicals. Also using local, seasonally available ingredients minimises energy used in food production, transport and storage. Preserving food has its limitations as many people can be facing challenges with equipment, sourcing local fresh ingredients and even time may be a factor.

2

On a personal level, time may be a factor especially if one's lifestyle is very busy. Preserving and sourcing food requires hard work and a lot of hours need to be put in. More and more people work nowadays meaning their lifestyle is very busy, especially if families have children or other commitments. People with busy lifestyles may not have enough time to start preparing food to preserve.

3

Home preservation saves a lot of money for people. However this has to be considered over the whole year, as the savings may not be noticeable until the preserved produce is out of season. During the off peak season the cost of the produce becomes very expensive. Buying fruits and vegetables at a lower price when the produce is plentiful and in season would save people heaps of money. For example, buying strawberries in season – at the market you can get an ice cream container of strawberries suitable for jam making for about \$3 or you can pay double that for frozen berries at the supermarket all year round including out of season. The cost of lettuce doubles during the winter time when out of season.

4

The cost of equipment and supplies for food preservation may be expensive. Cheap equipment may have to be replaced all the time. If expensive equipment is purchased then it would be more effective because it would last for a longer period. For example, using glass jars instead of plastic ones which are difficult to sterilise and reuse. This can affect families on a personal level as they may be living on a low income and probably have a set weekly budget, which means they may not be able to purchase equipment and produce after they have spent money on their household e.g. mortgage/rent, food, power, water etc. Therefore it is better to save up and buy expensive, effective supplies that will last a longer period or find some recycled containers.

5

Plastic jars cannot be recycled because they take years to decompose. Plastic jars are cheap therefore easy to afford but plastic causes pollution because when it is thrown away, it is bad for the environment. 'Each year, an estimated 500 billion to 1 trillion plastic bags are consumed worldwide. That comes out to over one million per minute. Billions end up as litter each year or in landfills.' That plastic that is ending up in our landfills is bad for the environment because plastic is made from petroleum, which is a non-renewable resource

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and a major contributor to global warming. Therefore people should use glass jars and containers when storing preserved food as glass is recyclable and is not bad for the environment.

While the time it takes to preserve food is considerable, economically preserving food is good money wise. One of the best ways to save money is to eat seasonally. Food in season is fresher and cheaper. It does not matter if you have a garden full of veggies, shop at your local farmers market or just find a great sale at your local grocery store. You can still preserve some amazing food for the winter. If people source food locally, they would save money on the cost of petrol as they do not have to travel several miles to purchase food. As well as saving money on petrol, you also help to save the environment by decreasing gas emission.

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Sourcing local food also helps maintain the vitamins and minerals in our food as these are gradually lost during long transportation. This means that people are not only buying locally but also looking after their well-being

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	Grade Boundary: Low Achieved
5.	<p>For Achieved, the student needs to evaluate sustainable food related practices.</p> <p>This involves determining the value of sustainable food related practices by considering the social, economic and environmental implications of those practices.</p> <p>This student has determined the value of the sustainable food related practices of sourcing and preserving local strawberries, by considering the social (3) (4) (7), economic (1) (5) (6) and environmental implications (2).</p> <p>Connections to individual, family and community well-being have been included (3) (7). Some brief examples have been used to support the evaluation of each implication (2) (3) (7).</p> <p>For a more secure Achieved, the student could consider more detailed examples that show the benefits and limitations of sourcing and preserving local strawberries.</p>

'Sourcing and preserving local strawberries'

We should buy strawberries from local producers because the social, environmental and economic benefits are huge in comparison to supermarket strawberries which may be cheaper at times but the quality, information given about the produce, the freshness, and the effects on the environment are nowhere as good. Buying local strawberries is supporting your local economy by putting money into local businesses which in turn puts money back into the community. This improves local prosperity by keeping money in the region rather than shipping it overseas. By keeping local money circulating within the region it promotes economic growth.

1

Environmental benefits of buying or sourcing local produce are extensive. When we buy strawberries from the supermarket, they generally come from mass producers either around New Zealand or from overseas (coming to the end of the season). This means huge amounts of carbon footprint coming from the trucks transporting the strawberries and from imports from plane and truck travel – this is called food miles. By buying local strawberries we are reducing food miles and our local berry farm also sources local services such as fertiliser. The farm also uses less packaging and recycles whenever possible thus reducing the amount of rubbish going into the landfill and reducing the stress on the environment. Our berry farm also sells fresh jam packaged in recycled glass jars which is also reducing the amount of glass going into the landfills (farm visit).

2

Socially, communities benefit a lot from buying local in many different ways. For example, you go out to our local berry farm and talk to the owners about their methods, how they grow their berries, what chemicals they use and where they source their services from etc. This gives peace of mind to everyone who buys their strawberries from them. The berry farm provides a 'pick your own' service around the Christmas period. Many local families now have a yearly tradition of going out to pick strawberries together. This has given them a chance to create memories with their families and friends. This gives parents stress free time to bond as a family at a time that is usually stressful. Also it is school holidays during this period so it gives the parents something to do with their children that is low cost and easy.

3

Preserving strawberries to make your own jam includes many sustainable practices such as recycling, composting, reducing food miles, reducing waste, reducing food packaging. Health benefits are another positive; also you are passing valuable life lessons on to the next generation that they too could pass on to future generations, developing traditions.

4

Preserving strawberries can save money in a few ways. Buying strawberries in season is when they are at their cheapest. You can freeze the leftovers as they retain their nutrients and flavour and then thaw when you are ready to make your jam. This can be cheaper than buying strawberries only on the day you want to make your jam because the prices fluctuate depending on availability. Also buying in season allows you to buy your fruit from your local berry farm instead of the supermarket. This ensures a good price for fresh quality fruit rather than the expensive lower quality supermarket fruit.

5

By making jam you can save lots of money by recycling old jars as you are not having to go and buy jars then all you have to buy or grow is the strawberries (as long as you have sugar). This will be cheaper than buying strawberry jam already made at the supermarket.

6

Buying/sourcing local strawberries or growing or preserving strawberries can affect our physical well-being. Eating fresh strawberries provides vitamin C, potassium, folate and fibre reducing the risk of bowel cancer by keeping the bowels regular and boosting the immune system which prevents infections/diseases. If we went and did 'pick your own' we would also be getting out in the sun, getting some exercise which will help to reduce the risk of weight gain and other obesity related diseases. The family could feel happy that they would be spending quality time together with family and friends sharing stories and developing stronger bonds. Also there is a sense of community with many local people out there doing the same thing. There could be people we know and could also catch up with a coffee. There could be a sense of achievement and a sense of belonging while spending time together with family and friends.

	Grade Boundary: High Not Achieved
6.	<p>For Achieved, the student needs to evaluate sustainable food related practices.</p> <p>This involves determining the value of sustainable food related practices by considering the social, economic and environmental implications of those practices.</p> <p>This student has determined the value of the sustainable food related practices of eating and buying locally produced food by considering the social implications. Some brief examples have been to be provided to support this (1) (3) (5).</p> <p>Brief connections to family and community well-being have been included (1) (5).</p> <p>Some environmental implications have been briefly considered (2) (3).</p> <p>Some economic implications have been identified (1) (6).</p> <p>To reach Achieved, the student could include more detail in determining the value of the economic implications. Examples could be provided to support some of the identified implications, e.g. that it <i>'looks and tastes better'</i> (1), that it is <i>'expensive'</i> (2), and the consideration of <i>'carbon miles'</i> (6).</p>

'Eat Local, buy local'

Farmers markets in New Zealand have many positives for the local community. It helps the community and the farmers make money and sell fresh produce to the community. The community get a lot from the farmers because they can get fresh local produce and local food from the people that like to sell their produce.

The positives about the farmers markets are that the local community get fresh fruit, vegetables and meat; also they can get lots of jam and jarred foods and bagged nuts. The farmers market is fresh because it looks and tastes better. It lasts longer so it is better value for money. It is also nutritionally better because it will have more nutrition than the older produce at the supermarket because nutrients are gradually lost as the produce ages. 1

Also at the farmers market you can get lots of hot food and lots of organic food. The organic food have no harmful sprays and the community likes to know there are no harmful sprays on what they are eating but also the organics can be expensive and the produce may be smaller than the non-organic produce. Because the farmers market is local most people can just walk to the market and save petrol and get exercise and feel good that they are getting some exercise in their day. Not only are you saving money from fuel you're not polluting the environment from using the car. 2

It all depends on how much time the family has. If both parents work full time, Sundays may be very busy with other family events and so there may not be enough time to go to the markets or to preserve any excess cheaper produce. 3

People can also take their own bags and so they don't have to pay for a bag also if they bring their own bags it will help the environment. If we keep buying plastic bags and do not reuse them it will harm the environment. Plastic takes a long time to decompose or if it gets into the oceans our marine can swallow the plastic and choke and die. 4

At most farmers' markets people and families can talk to the farmers about their products that they are selling and if they have put sprays or other things in to their produce. You can develop new friendships, have fun together as a family and everyone becomes more familiar with local produce and what's in season at different times of the year. You could also ask these people about ways to cook or preserve their produce if you haven't used that food before. 5

The community is helping the farmers by buying the farmers produce and the farmers are helping the community by selling fresh produce to the community; it keeps the money in the community and can create more jobs and opportunities for the community. The nutritional value in the farmers market is better than packaged food from the supermarket, because it has less carbon miles. 6