



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

Exemplar for Internal Achievement Standard Home Economics Level 1

This exemplar supports assessment against:

Achievement Standard 90959

**Demonstrate knowledge of practices and strategies to address
food handling issues**

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

New Zealand Qualification Authority

To support internal assessment from 2014

	Grade Boundary: Low Excellence
1.	<p>For Excellence, the student needs to demonstrate comprehensive knowledge of practices and strategies to address food handling issues.</p> <p>This involves justifying the safe practices and chosen strategies. The justification must involve consideration of the conditions under which micro-organisms grow, and the ongoing safety of the wider community.</p> <p>The student justifies safe food practices, for all of the critical points of contamination, for the food that is being prepared. Links are made to the conditions under which micro-organisms grow – temperature, food composition and moisture (1).</p> <p>Appropriate strategies are chosen and justified, with consideration given to ensuring the safety of other people in the community, and further education to ensure longer term safety (3).</p> <p>For a more secure Excellence, the student would need to include more specific detail to justify:</p> <ul style="list-style-type: none"> • how and why the identified sources of contamination link to the conditions needed for micro-organisms to grow (2) • why the Health Protection Officer is the best option to ensure the safety of the wider community.

Low Excellence

Please note – These are extracts from one student’s response

Safe food practices

Sanitise benches and work surfaces using hot soapy water to remove any dust or dirt from flies or bags etc. This will ensure bacteria are not transferred from the work surface into the food while it is being prepared. Wear a clean apron over your clothes while preparing food to prevent any dust or bacteria from your clothes transferring into the food. 2

Store raw chicken on the bottom shelf of the fridge at 2 – 4°C for one to two days. This will slow bacterial growth and also ensure no juices drip onto other food, particularly food that will not be cooked. Bacteria love raw meat as it is high in protein and contains moisture needed for them to multiply and if warmth is provided when food is not kept chilled they will grow rapidly. 1

Leave mayonnaise in its jar and yoghurt in its container in the fridge until needed. 2

Use a separate board and knife for cutting up the chicken to the one used to slice the cabbage, chop the spring onion and grate the carrot on. This is to prevent cross contamination of the bacteria from the chicken to the coleslaw. 2

Wash hands in hot soapy water after handling the chicken to ensure any juices that may contain bacteria are not transferred to the cabbage. 2

Wash the cabbage and the carrot to remove pesticides and dirt from the garden. 2

Once the coleslaw has been prepared and the mayonnaise added, it should be covered and returned to the top part of fridge to chill until ready to serve the meal. This is to ensure there is no chance for flies to land on it and the chilled temperature only allows bacteria to grow slowly. 1

Check the thickest part of the chicken is cooked by cutting it and checking if the juice is completely clear. This will ensure all the bacteria are killed as the heat above 75°C kills them. 1

Serve the piping hot food immediately on a warm plate to keep the food hot for as long as possible. As bacteria thrive between 4°C and 63°C, it is important to serve the food immediately while it is steaming hot and not leave it to sit around slowly cooling down. 1

Store cooked rice on covered trays in the top part of the fridge. Cooked rice becomes high risk when cooked as it now contains moisture that is needed for bacteria to grow. 2

Store any leftover stir fry in a covered container in the top part of the fridge.

Only reheat the rice once as bacteria are still growing slowly in the fridge which means bacteria could get to dangerous levels if the rice is reheated twice. 1

Taking action

Issue - Didn't cook the chicken long enough or it was frozen when they started cooking it and they didn't allow enough time for it to defrost and cook. The chicken may still have bacteria in it.

Possible strategies

1. Go back to the dairy and explain what is wrong with the chicken. Do not eat it.
2. Contact the Health Protection Officer and explain the problem. Include a photo of your undercooked chicken.

Barriers - Strategy 1

- You are shy and are not sure what to say. You feel embarrassed at confronting people and don't want to cause an argument in front of other people.
- You are in a rush to get back to school and don't have time to go back to the shop. It would be easier to just grab a sandwich from home rather than risk being late to afternoon class.

Enablers - Strategy 1

- You have plenty of time and don't want other customers to get sick. The dairy is just around the corner so you can just walk back there.
- Your Mum has offered to go back with you to explain the issue. You have the chicken and although you don't have a receipt, you were there less than 10 minutes ago so they should remember you.

Chosen action - Strategy 1 and 2.

Reasons – the people at the dairy might refund your money and also give you some more chicken after they have checked to see if any of the rest of the batch is pink. If it is you will then see them removing it all from sale and know that the rest of the community is not at risk of eating undercooked chicken.

3

You would feel good about yourself for trying to stop it happening to someone else...

The dairy owner may be very grateful that you let them know and they may be more careful in future. The dairy owner doesn't want to lose customers...

The Health Protection Officer is able check that the dairy owners are preparing food safely. They also can offer advice on where staff could go to complete food safety training so they understand how to defrost chicken safely, how to check when it is cooked and how long and at what temperature it is safe to keep it warm for the customers.

3

	Grade Boundary: High Merit
2.	<p>For Merit, the student needs to demonstrate in-depth knowledge of practices and strategies to address food handling issues.</p> <p>This involves giving reasons for the safe practices, linked to possible sources of contamination, and explaining how the strategies chosen in the action plan are best for ensuring the safety of the community.</p> <p>The student gives reasons for some of the safe food practices that are critical to ensuring that the food is safe to eat, linked to sources of contamination (2). Justification of some safe food practices is included, linked to temperature – one of the conditions under which micro-organisms grow (1).</p> <p>The student explains the chosen strategy, linked to ensuring the immediate safety of the community (3).</p> <p>To reach Excellence, the student would need to justify:</p> <ul style="list-style-type: none"> • more of the practices linked to the conditions under which micro-organisms grow, such as food composition, moisture and time • the chosen strategies, by explaining clearer links to how further education would ensure the ongoing safety of the wider community.

High Merit

Please note – These are extracts from one student’s response

Safe food practices

Clean and sanitise all work surfaces to remove bacteria and prevent cross contamination of bacteria from the work surfaces left behind from previous classes or coughing or sneezing etc.

2

Check to see if equipment is clean; if not wash in hot soapy water and dry thoroughly.

Store the chicken in the bottom of the fridge at 2-4°C in a covered container so the juices cannot drip onto other foods. The low temperature will slow the growth of bacteria so the chicken will last for up to 2 days or when it is labelled best before. Chicken and its juice are foods that bacteria grow well in so if the juice drips onto other food, especially raw vegetables, it will spread the bacteria.

1

Make sure the chicken is not left out on the bench in the danger zone while preparing other ingredients like the coleslaw as the bacteria will start to grow more rapidly.

2

Wash all the vegetables – the pepper, onion, cabbage, carrot and spring onion under cold running water to remove any dirt or pests from the garden.

2

When chopping the chicken, use a different board and knife to that you use to prepare the coleslaw. This is to ensure the chicken juice does not contaminate the raw salad vegetables which are not cooked so they would have bacteria in them.

1

Make sure the chicken is cooked thoroughly. The juice from the thickest piece of chicken must be clear. This means that heat has killed the bacteria making the chicken stir-fry is safe to eat and will not give you salmonella poisoning.

1

Make sure all food is served on a hot plate and is eaten as soon as possible so the food doesn't cool down.

2

Serve on clean plates that are free of cracks as these provide a good place for bacteria to grow.

2

Store leftover stir fry and rice in sealed containers in the fridge above any raw meat. This is to ensure bacteria cannot cross contaminate in the fridge.

2

Reheat all the leftovers to over 80°C to kill any bacteria that may have grown during storage.

2

Taking action

Issue - The chicken wasn't cooked long enough.

Possible strategies

1. Take the undercooked chicken back to the dairy and show the owner.
2. Ring the local council health person and explain the issue.

Barriers - Strategy 1

- You could be in a hurry – only have a short lunch time and don't have the time to go back.
- You don't have any receipt or proof that you bought the chicken there. There are other places selling cooked chicken close by so the owner could blame one of the other stores.

Enablers - Strategy 1 and 2

- You have confidence and feel you have the knowledge from your Home Economics classes to explain what is wrong with the chicken and how to fix it.
- You don't want other people to get undercooked chicken and risk getting sick.

Chosen action - Strategy 1

Reasons - It will have an immediate effect, face to face. I can show the chicken to the dairy owner and explain politely how I know the chicken should be cooked. I can ask if they could check the rest of the chicken and if it is not cooked it could be removed from sale.

I can also suggest that the local council health person can provide information about how to check whether the food is cooked and where the staff could get further training.

	Grade Boundary: Low Merit
3.	<p>For Merit, the student needs to demonstrate in-depth knowledge of practices and strategies to address food handling issues.</p> <p>This involves giving reasons for the safe practices, linked to possible sources of contamination, and explaining how the strategies chosen in the action plan are best for ensuring the immediate safety of the community.</p> <p>The student briefly explains reasons for some of the safe food practices that are critical to ensuring that the food is safe to eat. The explanation is linked to sources of contamination (1).</p> <p>The student briefly explains the chosen strategy, linked to ensuring the immediate safety of the community (3).</p> <p>For a more secure Merit, the student would need to give more detail in the reasons, explaining:</p> <ul style="list-style-type: none">• how and why the identified sources of contamination affect the safety of the prepared food (2)• how a dairy owner will know that chicken is safe to eat, i.e. what processes need to be put in place to ensure the safety of the community.

Low Merit

Please note – These are extracts from one student’s response

Safe food practices

Make sure the working area is sanitised to remove any dirt or leftover food. This will prevent bacteria that were previously on the bench cross contaminating the food you are preparing

1

Store chicken in the fridge on the bottom shelf covered at 2-4°C. Do not get out until you use it. This will slow any bacterial growth and prevent any cross contamination from the chicken juice dripping onto other foods.

1

Keep cooked rice in a sealed container in the fridge. Keep mayonnaise in its jar until use.

Make sure all equipment is clean. If not wash in hot soapy water so any food or bacteria present are removed.

2

Wash all the vegetables in cold water to remove dirt or chemicals.

2

Prepare the chicken and the cabbage on separate chopping boards using different utensils.

Once you have touched the chicken, wash your hands in hot soapy water to prevent cross contamination when you touch other food.

Cook the chicken until it is white all the way through and the juice is clear. This will ensure that the chicken is safe to eat as the bacteria will have been killed (over 75°C).

1

Reheat the rice in a microwave – once reheated do not reheat again – throw any leftovers away. Check the temperature is over 75°C to kill any bacteria present.

1

Serve the food piping hot on clean warmed plates. Serve immediately to prevent any flies or bacteria landing on it.

2

Taking action

Issue - Didn't cook the chicken long enough.

Possible strategies

1. Go back to the dairy and complain.
2. Take the chicken back to the dairy and get a refund.
3. Ring the Health Department.

Barriers - Strategy 2

- Concerned that the dairy owner will get angry and you will feel embarrassed and not sure what to say.
- You are home and do not want to spend money on petrol to drive back to the dairy.

Enablers - Strategy 2

- You feel that if you don't let the cook from the dairy know, then other customers could get sick.
- Your friends suggest they go with you to the dairy and support you if you have difficulty explaining the problem.

Chosen action - Strategy 2

Reasons: The dairy owner can check the rest of the chicken in the pie warmer and remove any that are not cooked properly. You would get a refund or another piece of chicken that was cooked.

Other customers are not going to buy undercooked chicken as the owner checks it while you are there.

The dairy owner will hopefully check each batch of chicken more carefully to ensure they are cooked. They do not want to lose customers from selling food that makes them sick.

	Grade Boundary: High Achieved
4.	<p>For Achieved, the student needs to demonstrate knowledge of practices and strategies to address food handling issues.</p> <p>This involves explaining and using safe practices when handling food, and completing an action plan to address a food handling issue.</p> <p>The student explains safe practices, linked to the most critical points of contamination (1). Some sources of contamination that could affect the safety of the prepared food are identified (2).</p> <p>The student completes an action plan that includes an appropriate strategy, and explains barriers and enablers to taking action (3). Some brief reasons are given for the chosen strategy (4).</p> <p>To reach Merit, the student would need to give reasons for:</p> <ul style="list-style-type: none">• the safe food practices of storing, cooking and reheating high risk foods• taking chicken back to the dairy, linked to the immediate safety of the community.

High Achieved

Please note – These are extracts from one student’s response

Safe food practices

Personal hygiene – you need to wash your hands with soap, scrub under your nails as these are places bacteria can hide. 2

You need to tie up long hair as it can pass bacteria into food if it falls into it. 2

Chopping boards should be scrubbed thoroughly as there are many cuts in the surface where bacteria can hide. 2

Equipment should be dried thoroughly to prevent any bacteria growing in the moisture. 2

Rinse the green pepper under the tap to get rid of any dirt from the garden or your hands. 2

Keep chicken in the fridge at 4°C until you have to take it out so it doesn’t sit at room temperature and allow flies, insects or bacteria to settle on it. The chicken should be in a covered container and placed in the bottom of the fridge. 2

Use a different knife to cut everything so you don’t pass bacteria from one type of food to another. 2

The chicken should be cooked to at least 75°C in the centre. It should be white all through without pink showing and there should be clear juices running from it. If the chicken is not cooked properly, it could cause sickness. 1

Cook the rice until it is white and soft. The vegetables do not need to be cooked properly as they could also be eaten raw.

Everything on the plate should be served hot. Serve immediately to ensure everything is hot. 1

Don’t leave a plate of food sitting on the bench otherwise bacteria and flies can land on it. 2

Any leftovers such as the pineapple should be put into containers so the rust from the tin doesn’t contaminate the pineapple. 2

You should date everything to ensure that no food will rot and go off. Also so you know how fresh food is. 1

Cooked rice should be kept in a container in the fridge until needed.

For reheating rice and chicken stir fry, they should be hot all the way through – to at least 75°C in the middle. Serve it immediately. 1

Taking action

Issue - Chicken was not hot all through. Chicken has only been cooked on the outside (middle is still pink). It was just being left warm, (not hot) in a pie warmer.

Possible strategies

1. Throw the chicken away and talk to the dairy owners about it.
2. Take the chicken back to the dairy and get a refund.
3. Ring the District Council.

4

Barriers - Strategy 2

- Not having the receipt to show you had bought the chicken there. Dairy owners don't believe that you bought it from them.
- You don't want to have a row with the dairy owners - don't feel confident about asking for your money back.

3

Enablers - Strategy 2

- You have the time and energy to go back to the dairy and get a refund.
- You live close to the dairy and often buy food from there.

3

Chosen action - Strategy 2

Reasons - I would get the money back for the chicken and would not get sick from eating undercooked chicken.

4

It may make the dairy owners more careful about how they cook their food and make it safer for all customers.

Dairy owners would become aware of how to cook their food so their customers will not get sick. If news is spread around the community of how the chicken was uncooked and the Health Inspector was called, people wouldn't want to buy cooked chicken from the dairy.

	Grade Boundary: Low Achieved
5.	<p>For Achieved, the student needs to demonstrate knowledge of practices and strategies to address food handling issues.</p> <p>This involves explaining and using safe practices when handling food, and completing an action plan to address a food handling issue.</p> <p>The student briefly explains safe practices linked to handling food safely. The most critical points of contamination are outlined, and key temperatures are included for storage and cooking, along with a description of how to visually recognise when chicken is cooked (1).</p> <p>The student completes an action plan that includes an appropriate strategy, and explains barriers and an enabler to taking action (3). Some very brief reasons are given for the chosen strategy (4).</p> <p>For a more secure Achieved, the student would need to include more specific detail, explaining:</p> <ul style="list-style-type: none"> • how to handle food safely (2) • how to reduce cross contamination and the transfer of micro-organisms, particularly when using and cleaning boards and equipment with high risk foods and ingredients that will be served raw as in coleslaw • enablers to support taking action.

Low Achieved

Please note – These are extracts from one student’s response

Safe food practices

Hands are washed in hot soapy water and dried thoroughly. 1

Ensure all equipment is clean and dry.

Store the chicken in the fridge below 4°C in a container at the bottom so it cannot contaminate other food. 1

Eggs, yoghurt and mayonnaise should be stored in their containers. 2

When preparing chicken use a separate board and knife to cut and keep away from everything else. 2

Wash all vegetables to wash off bugs, pesticides or other unpleasant substances that may be on them 1

Onion and green pepper – use another board.

When cooking the chicken, cook to at least 75°C to kill bacteria. The chicken should be white and the juice clear. Cook everything until it is piping hot before eating. 1

Use clean and dry plates to serve it on.

Leftover rice is a major high risk food because when it’s left overnight in the fridge; bacteria grow slowly; if not reheated correctly there is a high chance of food poisoning. 1

When reheating, place leftovers in the microwave for an average of 4 mins on high. Test to see if it is safe to eat. 2

Taking action

Issue - Uncooked chicken left in a pie warmer to grow bacteria.

Possible strategies

1. Tell the shop owner to make sure the cooking oil is at the correct temperature as it sounds as though it is too high and the chicken has only cooked on the outside.
2. When getting the chicken ask what temperature the middle was or check if the juice is running clear.
3. Get a Health Inspector from the District Council to inspect the shop. 3
4. Go to the shop and tell them about the chicken.

Barriers - Strategy 4

- May not want to have an awkward face to face conversation.
- Might be your friend who is employed and you do not want to get them into trouble.

3

Enablers – Strategy 4

- Call over the phone and explain that the chicken is not cooked and could they cook you some more.
- Just tell your friend via text what the problem is before you go and get more chicken – that way there will be no big problem.

3

Chosen action – Calling a Health Inspector

Reasons - The inspector would come, give some tips, maybe a warning or a fine. They would then cook to a correct temperature helping the wider community.

4

Always knowing chicken would be cooked correctly afterwards...

People wouldn't accidentally eat raw chicken and would know that it was up to scratch with a health rating...

Because the shop would be informed of how to cook everything correctly and safely. The shop owner would pass on his knowledge to other shops in the area so safe food all around.

4

	Grade Boundary: High Not Achieved
6.	<p>For Achieved, the student needs to demonstrate knowledge of practices and strategies to address food handling issues.</p> <p>This involves explaining and using safe practices when handling food and completing an action plan to address a food handling issue.</p> <p>The student briefly explains safe practices linked to some critical points of contamination when handling the high risk food (chicken). Key temperatures are included for storage and reheating (1).</p> <p>The student completes an action plan that includes a list of possible strategies, and explains barriers and enablers to taking action (2). An appropriate strategy is chosen with very brief reasons outlined (3).</p> <p>To reach Achieved, the student would need to include more specific detail explaining:</p> <ul style="list-style-type: none">• how to clean surfaces, boards and knives safely• how to visually recognise when chicken is cooked• safe food practices for the specific vegetables in the recipe• barriers and enablers that hinder or support taking action.

High Not Achieved

Please note – These are extracts from one student’s response

Safe food practices

The worker should wash their hands in hot soapy water and dry them. 1

Have a clear work area as cluttered stuff could contaminate the food.

Clean the bench as bacteria can get into cuts and scratches. 1

Clean boards and knives before use and after you’ve used them for different foods which if not totally clean could contaminate the food as it is the perfect place for bacteria to grow. 1

Storing chicken – from fresh, place straight in the fridge (4°C) on a covered plate closest to the bottom. 1

Cut the chicken with a separate board and knife to that used with other ingredients. 1

Fresh ingredients should be stored in a cool dark environment to prevent them from going off.

Cook the chicken right through to kill any bacteria that might have grown. 1

Cook fresh food so it is tender but not overcooked.

Serve on warm plates so the food is warm for longer.

Store leftover stir-fry in a shallow container, cover and place in the fridge. The fridge allows it to cool faster and minimise growth of bacteria. 1

Leftover rice must be left overnight in the fridge as it is a high risk food when cooked. 1

When reheating the stir-fry, heat to above 75°C to kill bacteria. 1

Taking action

Issue – Chicken is not cooked through. We do not know how long it has been in the pie warmer.

Possible strategies

1. Take it back for a refund.
2. Phone Health Inspector from the Council. 2

Barriers - Strategy 1

- low self-esteem.

- no receipt
- food cold
- shop closed
- live too far away.

2

Enablers – strategy 1

- you've done it before
- have receipt
- live close by
- shop open
- food still warm.

2

Chosen action – Strategy 1

Reasons - Because they can change as long as they know how to. It may have been a one-off.

I would get a refund and the satisfaction of not putting people out of work and better food.

Better food, no jobs lost...

3

It will help the wider community because there will be a place that will be safe to eat.