

Internal Assessment Resource

Home Economics Level 1

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| This resource supports assessment against:  Achievement Standard 90959 version 2  Demonstrate knowledge of practices and strategies to address food handling issues |
| Resource title: Safe Food |
| 5 credits |
| This resource:   * Clarifies the requirements of the standard * Supports good assessment practice * Should be subjected to the school’s usual assessment quality assurance process * Should be modified to make the context relevant to students in their school environment and ensure that submitted evidence is authentic |

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| Date version published by Ministry of Education | February 2015 Version 3  To support internal assessment from 2015 |
| Quality assurance status | These materials have been quality assured by NZQA.  NZQA Approved number A-A-02-2015-90959-02-4457 |
| Authenticity of evidence | Teachers must manage authenticity for any assessment from a public source, because students may have access to the assessment schedule or student exemplar material.  Using this assessment resource without modification may mean that students’ work is not authentic. The teacher may need to change figures, measurements or data sources or set a different context or topic to be investigated or a different text to read or perform. |

Internal Assessment Resource

Achievement Standard Home Economics 90959: Demonstrate knowledge of practices and strategies to address food handling issues

Resource reference: Home Economics 1.4A v3

Resource title: Safe Food

Credits: 5

Teacher guidelines

The following guidelines are supplied to ensure that teachers can carry out valid and consistent assessment using this internal assessment resource.

Teachers need to be very familiar with the outcome being assessed by Achievement Standard Home Economics 90959. The achievement criteria and the explanatory notes contain information, definitions and requirements that are crucial when interpreting the standard and assessing students against it.

Context/setting

This assessment activity requires students to demonstrate their knowledge of practices and strategies to prevent and address food handling issues. The assessment activity includes two scenarios that describe food handling issues that the students will address.

In the first part of the activity, students demonstrate their knowledge of safe food handling practices through a written activity followed by a practical demonstration of food preparation, cooking and service. In the second part of the activity, students develop an action plan that includes strategies for addressing the food handling issue described in the scenario.

Before beginning this activity, you need to provide opportunities for the students to take part in cookery experiences that involve a range of high-risk foods. It would also be useful to discuss consumer expectations for food purchased from a food outlet, and the requirement for consumers to act responsibly if they discover unsafe food practices.

To demonstrate comprehensive knowledge means that students will justify their safe practices and chosen strategies. This will involve consideration of the conditions under which micro-organisms grow and the ongoing safety of the wider community.

Conditions

The first part of the activity has two components – written and practical. Each component takes one hour.

The written task is a closed book assessment.

The written task that contains the recipe/s for the practical activity must be completed before students begin the practical activity.

Adapt the Teacher Appendix B: Practical Assessment Checklist. This is provided to help in assessing the students’ food handling practices. This checklist is for teacher use only. Do not give it to the students or include it in the assessment booklet as it contains possible answers. You will need to adapt this checklist to take into account the recipes used. It is recommended that teachers annotate and verify the practical assessment checklists.

You are advised to assess a maximum of eight students during each practical session to ensure that the students are given fair and valid practical assessment opportunities.

The second part is a one-hour, in-class assessment that will take place under closed-book conditions.

Students must work independently on all parts of the task. All responses must be in the student’s own words.

Resource requirements

You will need to change the recipe/s and the food handling scenario before using this task to ensure authentic responses from students.

Select a recipe/s for students to use in the first part of the assessment that includes high-risk ingredients, risk of cross-contamination occurring, time and temperature controls required to ensure the food is safe to eat. Ensure the step-by-step instructions in the recipe/s do not provide answers such as, “Cook until the juices run clear.” Use the recipe provided in Teacher Appendix A as a guide.

Example recipes are provided in Teacher Appendix A. These recipes include pre-cooked rice. You need to provide the cooked rice or ask your students to prepare it individually, before they begin the practical part of the task.

Additional information

None.

Teacher Appendix A: Sample Recipe

Teacher note: You will need to change the recipes before using this task to ensure authentic student responses.

Pineapple chicken (serves 2)

Ingredients:

* 125g chicken
* ½ c pineapple pieces and juice
* ½ t cornflour
* 1 T diced onion
* ½ egg white
* ½ green pepper diced
* 2 T oil
* Pinch of salt
* 1 t crushed garlic
* 1 T soy sauce
* ½ t fresh ginger
* ½ t cornflour

Steps:

* Cut chicken into long, thin strips.
* Mix cornflour and egg white thoroughly with a spoon or fork.
* Dip chicken into mixture.
* Heat oil in pan until hot.
* Add chicken and stir-fry.
* Remove chicken from pan.
* Add garlic and ginger, stir-fry for 30 seconds.
* Drain pineapple and set aside juice.
* Add pineapple, onion and capsicum to oil.
* Stir-fry until onion becomes transparent.
* Add pineapple juice.
* When mixture boils, add salt, soy sauce and cooked chicken.
* Mix cornflour with little cold water to form a paste.
* Add to chicken and stir until sauce thickens.
* Serve immediately on rice or pasta.

Coleslaw (serves 2)

* 1c of finely sliced cabbage
* 1 grated carrot
* Half a finely chopped spring onion
* 2T natural yoghurt
* 1T mayonnaise
* ½ t lemon juice

Mix all ingredients together.**Teacher Appendix B: Practical Assessment Checklist**

Teacher note: You could use or adapt this checklist to suit your context/recipe.

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| Student name:  Date: | | |
| Ties back hair and/or wears a hat. | |  |
| Washes hands thoroughly before starting work. | |  |
| Wears a clean apron. | |  |
| Keeps any cuts and scratches covered. | |  |
| Uses a clean spoon to taste food. | |  |
| Washes hands after handling high-risk food and/or rubbish. | |  |
| Cleans and sanitises work surfaces before and after use. | |  |
| Uses only clean utensils and equipment. | |  |
| High-risk food stored in fridge until needed | |  |
| Collects high-risk food, using clean equipment. | |  |
| Washes fruit/vegetables before cooking. | |  |
| Uses a separate board for raw chicken and vegetables. | |  |
| Washes knives thoroughly between using high-risk foods and other food products. | |  |
| Cooks chicken thoroughly, i.e. juice runs clear when pierced in the thickest area or internal temperature of chicken has reached 75ºC. | |  |
| Rice is re-heated appropriately, i.e. until steaming in centre. | |  |
| Left-overs are dealt with appropriately – chicken and salad in fridge, rice thrown away. | |  |
| Teacher signature: | Date: | |

Internal Assessment Resource

Achievement Standard Home Economics 90959: Demonstrate knowledge of practices and strategies to address food handling issues

Resource reference: Home Economics 1.4A v3

Resource title: Safe Food

Credits: 5

| Achievement | Achievement with Merit | Achievement with Excellence |
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| Demonstrate knowledge of practices and strategies to address food handling issues. | Demonstrate in-depth knowledge of practices and strategies to address food handling issues. | Demonstrate comprehensive knowledge of practices and strategies to address food handling issues. |

Student instructions

Introduction

This assessment activity requires you to demonstrate your knowledge of practices and strategies to prevent or address food handling issues, in two different scenarios.

This is a closed-book assessment and you will work individually. All responses must be in your own words.

You will have three hours of in-class time to complete this task. Your teacher will provide further details.

You will be assessed on how well you are able to explain in writing and demonstrate in a practical activity, practices and strategies to handle food safely.

To demonstrate comprehensive knowledge means that you will justify their safe practices and chosen strategies. This will involve consideration of the conditions under which micro-organisms grow and the ongoing safety of the wider community.

Task

Scenario A has two components: written and practical. Complete the written task before starting the practical assessment.

Scenario A

Your mother has sent you a text, saying she is running late and won’t be home in time to cook the evening meal. Luckily it’s your favourite dish, so you are keen to help out. Your mother tells you where to find the recipe and assures you that all of the ingredients are either in the fridge or pantry. She tells you to use the leftover cooked rice from last night’s dinner.

* Read the recipes provided by your teacher.
* Identify and explain the practices for each of the stages listed below to ensure the food would be safe to eat. Refer to all high-risk foods from your recipes.

Address all of these stages in your written response:

Teacher note: Adjust these headings to reflect your chosen recipe/s

* work area before cooking
* equipment
* collection of high-risk food
* storage of ingredients
* preparing ingredients
* cooking
* reheating of cooked rice
* serving
* storage of leftovers (if applicable)
* reheating of leftovers (if applicable).
* Justify the chosen practices using detailed reasons linked to possible sources of contamination and conditions under which micro-organisms grow.
* Demonstrate these safe food preparation practices as you prepare, cook and serve the recipes.

Your teacher will observe your safe food handling practices as you prepare, cook and serve the recipes.

Scenario B

You have just bought a couple of chicken drumsticks from a local lunch bar. The drumsticks were being kept warm in a pie warmer. A few minutes later, you arrive home ready to eat your chicken. You discover that although the drumsticks are golden brown on the outside, they are still quite pink in the middle.

In a written response:

* describe the food handling issue in this scenario
* develop an action plan you could use to address the issue. (Address means to solve the immediate problem and prevent the problem occurring again for you or others in the community.)
* describe at least two strategies you could use to address the issue. At least one strategy should address the issue at both an individual and community level.
* describe the barriers that could make it difficult to carry out each strategy
* describe the enablers that could help you to carry out each strategy
* describe the probable outcomes or consequences of carrying out each strategy
* compare the strategies and explain which one(s) would be most successful in dealing with the food handling issue
* justify your chosen strategy/ies with reference to your safety and that of the wider community.

Assessment schedule: Home Economics 90959 Safe Food

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| Evidence/Judgements for Achievement | Evidence/Judgements for Achievement with Merit | Evidence/Judgements for Achievement with Excellence |
| The student demonstrates knowledge of practices and strategies to address food handling issues.  In response to Scenario A, the student:   * provides a written explanation for practices that are required to ensure the prepared food is safe to eat. Practices include prevention of cross-contamination, appropriate temperatures, timing and clear descriptions of how to recognise when food is safely cooked. * demonstrates safe food handling practices when preparing, cooking and serving the recipe.   In response to Scenario B, the student:   * identifies the food handling issue and developed an action plan to address it * describes at least two possible strategies and explains the barriers, enablers and probable outcomes for each strategy * chooses and explains an appropriate action.   For example (partial):  Scenario A, written response  *Storage: High-risk foods were covered and stored in the appropriate places in the fridge – chicken at the bottom and rice (no more than 24 hours old) on a higher shelf.*  Work area before cooking: Work surfaces like benches, stovetop and microwave were wiped using a clean cloth and hot soapy water to remove dirt and bacteria.  Equipment: Equipment was thoroughly checked to ensure it was clean before I used it. This would remove any bacteria that were present.  Preparing ingredients: When preparing the chicken, I used separate chopping boards and knives to prevent cross-contamination. I washed the green pepper thoroughly under cold water before cooking to remove any dirt or chemical residue.  Cooking: I cooked the chicken thoroughly. I knew it was cooked as I pierced a number of pieces of chicken through their thickest points to check that the juices ran clear.  Serving: I served the pineapple chicken straight away while still piping hot on a clean plate because hot food has to be served hot.  Reheating: I reheated the rice in the microwave until the middle was piping hot. I could tell this because it was steaming and the underside of the container was very hot to touch.  Storing leftovers: Since the dish had been reheated once, any leftovers should not be reheated again and should be thrown out because there is a high possibility of bacteria developing on them.  Scenario B, written response  *Issue: The chicken was not cooked well enough and could have been dangerous to health.*  Strategy 1: Return to the lunch bar immediately and discuss issue with them. Don’t eat the chicken drumsticks.  Barriers: You have no time to address the issue, you need transport to return to the lunch bar, you don’t feel confident about speaking to an adult about the matter as you feel they may not take any notice, other people may be in the shop, and you feel embarrassed about complaining in front of them.  Enablers: You are worried about yourself and other people eating the drumsticks and becoming sick.  Probable outcome/consequence: You don’t become sick from eating the drumsticks and other people on that day do not either.  Strategy 2: Contact your Health Protection Officer (HPO) and alert them to the situation.  Barriers: You haven’t got the number; you do not feel confident about ringing.  Enablers: You could ring or email them to ensure they are notified of the issue quickly, you will feel good that other people in the community are not put at risk.  Probable outcome/consequence: HPO will visit the lunch bar, the lunch bar owner is made aware of unsafe food handling practices, strategies will be put in place so it won’t happen again, HPO will return to ensure procedures are in place.  Note: Throwing the chicken drumsticks in the rubbish is not appropriate as it does not address the food handling issue. | The student demonstrates in-depth knowledge of practices and strategies to address food handling issues.  In response to Scenario A, the student:   * provides a detailed written explanation for practices required to ensure the prepared food is safe to eat. The student includes reasons for the safe food handling practices, which are mainly linked to the sources of contamination, such as micro-organisms, chemicals and dirt.   In response to Scenario B, the student:   * explains reasons for choosing this action rather than others. Reasons are linked to the immediacy of dealing with food handling issues where other people in the community could also buy contaminated products and get sick.   For example (partial):  Scenario A, written response  *Storage: High-risk foods were stored in the appropriate places in the fridge – chicken at the bottom and rice on a higher shelf. This way juices from the raw chicken will not be able to drip and contaminate other food. Rice (no more than 24 hours old) and chicken both need to be stored between 2º and 4ºC to slow bacterial growth.*  *Work area before cooking: Work surfaces like benches, stovetop and microwave were wiped using a clean cloth and hot soapy water to remove dirt and bacteria. This prevents contamination from the exposed surface to the food being prepared.*  *Equipment: Equipment was thoroughly checked to ensure it was clean before I used it. This would remove any bacteria that were present. The measuring spoons appeared dirty so I washed them in hot soapy water and dried them with a clean tea towel to make sure that any bacteria that may have been present did not have a chance to contaminate my ingredients.*  *Preparing ingredients: When preparing the chicken I used separate chopping boards and knives to prevent cross-contamination. If the chicken contaminated other ingredients like the green pepper or pineapple they would not be safe to eat as you have no guarantee that all bacteria would be destroyed in cooking. I washed the green pepper thoroughly under cold water before cooking to remove any dirt or chemical residue.*  *Cooking: I cooked the chicken thoroughly. I knew it was cooked as I pierced a number of pieces of chicken through their thickest points to check that the juices ran clear. If the chicken had still been pink, I would have cooked it for longer to ensure all bacteria present were killed.*  *Serving: I served the pineapple chicken straight away while still piping hot on a clean plate because hot food has to be served hot, to ensure the food is not contaminated. If not served immediately there is a possibility that it could result in food poisoning due to cooling to unsafe serving temperatures.*  *Reheating: I reheated the rice in the microwave until the middle was piping hot. I could tell this because it was steaming. Rice becomes an extremely high-risk food once cooked and reheated, and it is important that any bacteria present are destroyed to avoid food poisoning.*  *Storing leftovers: Since the dish has been reheated once it cannot be safely reheated again and should be thrown out. There is always the chance of bacteria forming on stored leftovers, and this way the rice does not pass through “the danger zone” for forming bacteria again.*  Scenario B, written response  *Issue: The chicken did not appear to have been cooked well enough and could have been carrying bacteria dangerous to health.*  To address this food handling issue, I would return to the shop as soon as I had discovered that the chicken drumsticks were insufficiently cooked.  I would choose this strategy rather than the others because it is serious and someone could have become very sick. By going into the lunch bar, the food handling issue can be resolved without wasting others’ time, like the HPO. If a letter were sent, it would take a couple of days to arrive. A fax could be ignored, whereas a face-to-face meeting means the issue can be dealt with immediately. This action will allow the owner to be alerted to the problem and they will remove all chicken drumsticks from the pie warmer therefore ensuring no other customers will get sick from eating the chicken. | The student demonstrates comprehensive knowledge of practices and strategies to address food handling issues.  In response to Scenario A, the student:   * provides detailed reasons for the safe food handling practices, which are mainly linked to the conditions of growth of micro-organisms and risks from other contaminants.   In response to Scenario B, the student:   * justifies their action plan, making links between the reasons that the food handling issue occurred and how the suggested action will prevent the problem happening again, and acknowledging the need for ongoing safety of the wider community. The justification of the action plan is focused on the type of action chosen, the immediacy of the response and the long-term outcomes for societal safety. This may include contacting the relevant health authorities as part of ongoing education for the establishment.   For example (partial):  Scenario A, written response  *Storage: High-risk foods were stored in the appropriate places in the fridge – chicken at the bottom, and rice on a higher shelf. This way, juices from the raw chicken will not be able to fall on and contaminate other food. Rice (no more than 24 hours old) and chicken both need to be stored between 2º and 4º C to slow bacterial growth. Both of these foods are perfect for bacterial growth because they are moist and provide ‘food’ for bacteria*  Work area before cooking: Work surfaces like benches, the stovetop and the microwave were wiped using a clean cloth and hot soapy water to remove dirt and bacteria. This prevents contamination from the exposed surface to the food being prepared.  Equipment: Equipment was thoroughly checked to ensure it was clean before I used it. This would remove any bacteria present. The measuring spoons appeared dirty so I washed them in hot soapy water and dried them with a clean tea towel to make sure that any bacteria that may have been present did not have a chance to contaminate my ingredients.  Preparing ingredients: When preparing the chicken I used separate chopping boards and knives to prevent cross-contamination. If the chicken contaminated other ingredients, like the green pepper or pineapple, they would not be safe to eat as you have no guarantee that all bacteria would be destroyed in cooking. I washed the green pepper thoroughly under cold water before cooking to remove any dirt or chemical residue.  Cooking: I cooked the chicken thoroughly. I knew it was cooked as I pierced a number of pieces of chicken through their thickest points to check that the juices ran clear. If the chicken had still been pink, I would have cooked it for longer to ensure all bacteria present were killed.  Serving: I served the pineapple chicken straight away while still piping hot on a clean plate because hot food has to be served hot to ensure the food is not contaminated. If not served immediately, there is a possibility that it could result in food poisoning due to cooling to unsafe serving temperatures.  Reheating: I reheated the rice in the microwave until the middle was piping hot. I could tell this because it was steaming and the underside of the container was very hot to touch. Rice becomes an extremely high-risk food once cooked and reheated. It is important that any bacteria present are destroyed to avoid food poisoning. Warm rice provides an ideal medium for bacteria to grow and any bacteria already present could continue to multiply.  Storing leftovers: Since the dish had already been reheated once, it should not be reheated again and should be thrown out. This way, the rice does not pass through “the danger zone” again. Rice is an ideal medium for bacterial growth, and every time it is reheated it gives an opportunity for bacteria to grow.  Scenario B, written response  Issue: The chicken showed signs of not being cooked well enough (were pink in the middle) and could have been carrying bacteria dangerous to health.  To address this food handling issue, my first step would be to return to the lunch bar to alert them to the problem and ensure that the problem was dealt with immediately. Then I could follow two possible strategies. I could ring the HPO and let them know the situation, giving contact details of the lunch bar and seeking assurance that they would provide support to the lunch bar. Or I could follow up with a return visit to the lunch bar to see if the changes have been actioned.  I would choose these strategies rather than the others because returning to the lunch bar in the first instance is the most appropriate action to take to deal with the problem immediately and, by contacting the HPO, you are dealing with a professional service that will have appropriate procedures in place to deal with this issue. If a letter were sent, people within our community may be affected before the letter arrived and a fax could be ignored. This action will allow the owner to be alerted to the problem and they will remove all chicken drumsticks from the pie warmer, therefore ensuring no other customers will get sick from eating the chicken. Then the HPO could follow up to ensure that the problem was not repeated.  In following up myself, I would be allowing the lunch bar to rectify the problem, but I could refer the matter to the HPO if the problem had not been dealt with adequately.  The wider community can be assured this food handling issue will not happen again because the HPO would visit the lunch bar and they would be able to check the lunch bar’s food handling procedures and provide support and advice on areas that were of concern, including the correct way to cook chicken drumsticks. This will ensure that members of the community would not suffer from food poisoning if eating the chicken from this lunch bar again. |

Final grades will be decided using professional judgement based on a holistic examination of the evidence provided against the criteria in the Achievement Standard.