

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: Food Handling Issues |
| 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-02-2015-90959-02-4458 |
| 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 1.4B v3

Resource title: Food Handling Issues

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.

In the first part of the activity, students demonstrate their knowledge of safe food handling practices through a written task followed by a practical demonstration of food preparation, cooking and service.

In the second part, students select a scenario (from a selection you have provided) that describes a food handling issue, and develop an action plan that includes strategies for addressing the food handling issue 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 may 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 for the practical activity must be completed before students begin the practical activity.

It is recommended that you use a checklist to help assess the students’ practical demonstration. Home Economics 1.4A *Safe Food* includes an example as an appendix to the Teacher Guidelines that you could adapt to suit the specific details of your context/recipes.

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

Resource requirements

Select a recipe(s) for Scenario A that includes some high-risk ingredients, such as mince, chicken or tofu. The recipe/s also needs to include some raw vegetables that will be served raw e.g. coleslaw to provide the opportunity for students to demonstrate their knowledge of cross contamination.

Prepare a number of scenarios that include a food handling issue for students to choose from for Scenario B.

You will need to choose the recipe/s that does not use the same high risk foods as the sample answers in the schedule to ensure authentic responses from students.

Provide an appropriate recipe for students to follow. Ensure the step-by-step instructions in the recipe do not provide answers such as, “Cook until the juices run clear.”

Additional information

None.

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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.

Task

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

Scenario A

Your best friend from primary school is coming to stay for the weekend. Their favourite food is pasta. You decide to find a delicious recipe for a pasta and meat (or tofu) dish (or use the one that your teacher provides) that you and your friend will enjoy.

* Your teacher will provide a range of recipes for you to choose from. Select a recipe that includes high-risk ingredients such as meat, chicken or tofu as well as some vegetables that will be served raw.
* Read the recipe you selected.
* 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 recipe.

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 cereal (if applicable)
* 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 and cook the recipe.

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

Scenario B

From a selection of scenarios provided by your teacher, choose one scenario that describes an unsafe food handling practice.

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 choose 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 Food Handling Issues

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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 and cooking the recipe.   In response to Scenario B, the student:   * identifies the food handling issue, and develops 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 or mince at the bottom and pasta (no more than 24 hours old) on a higher shelf.*  Work area before cooking: Work surfaces like benches, stovetops and microwaves 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 (or mince), I used separate chopping boards and utensils 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/mince thoroughly. I knew the chicken was cooked as I pierced a number of pieces of chicken through their thickest points to check that the juices ran clear. I knew the mince was done when it turned from pink to brown.  Serving: I served my pasta bake straight away while still piping hot on a clean plate because hot food has to be served hot.  Reheating: I reheated the pasta in the microwave until the middle was piping hot. I could tell this because it was steaming and the centre underside of the container was piping hot.  Scenario B  Issue: A packet of ham from a supermarket deli was sold past its best-before date.  Strategy 1: Return to the supermarket, ask to talk to the deli manager, and explain what has happened.  Barriers: The manager of the deli may not be on duty, and the assistant is not able to take appropriate action.  Enablers: By returning to the supermarket with the ham in its original package, you can alert them immediately so the ham on sale can be removed.  Probable outcome/consequence: The deli section of the supermarket will check the ham on sale and remove the ham that does not meet their criteria for safety.  Strategy 2: Contact your District Health Board (DHB) and alert them to the situation.  Barriers: You may not feel confident telling the DHB about the ham. Or you may not be able to talk to the appropriate person.  Enablers: You could ring or email the DHB 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:  *The DHB will contact the supermarket, and the supermarket will remove the ham.*  Note: Most large food-based organisations such as supermarkets develop their own Food Safety Programmes or Food Control Plans, exempting them from the 1974 Food Hygiene Regulations. Their higher authority is their local District Health Board, not the local primary health organisation (see the New Zealand Food Safety Authority). | 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 – mince or chicken at the bottom and pasta on a higher shelf. This way, juices from the raw mince or chicken will not contaminate other food. Pasta (no more than 24 hours old) and mince/chicken both need to be stored between 2º and 4º C to slow bacterial growth.*  Work area before cooking: Work surfaces like benches, stovetops and microwaves 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 the bacteria that may have been present did not have a chance to contaminate my ingredients.  Preparing ingredients: When preparing the chicken/mince, I used separate chopping boards and utensils to prevent cross contamination. If the chicken/mince contaminated other ingredients such as onion and green pepper, 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/mince thoroughly. I knew the chicken was cooked as I pierced a number of pieces 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. I knew the mince was cooked when it changed colour from pink to brown. The pasta is cooked close to serving time so it does not have time for bacteria to grow.  Serving: I served my pasta dish 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: When I am using leftover pasta, I reheat it by plunging the pasta into a pot of boiling water for a few minutes. Pasta becomes an extremely high-risk food once cooked and reheated and it is important that any bacteria present are destroyed to avoid food poisoning.  Scenario B  Issue: A packet of ham from a supermarket deli was sold past its best-before date and could have been dangerous to health.  To address this food handling issue, I would return to the supermarket with the ham in its package as soon as I discovered that the ham was unfit for sale, and ask to speak to the deli manager.  I would choose this strategy rather than the others because it is serious and someone could have become sick. I think if I had contacted the DHB, it would have created a delay putting more people at risk. A face-to-face meeting means the issue can be dealt with immediately.This action will allow the supermarket to be alerted to the problem, and they willremove any ham from the deli cabinet immediately, therefore ensuring no other customers will get sick from eating the ham. Since they have a Food Safety Plan, they will be able to check their procedures to make sure the problem does not occur again.  Note: Most large food-based organisations such as supermarkets develop their own Food Safety Programmes or Food Control Plans, exempting them from the 1974 Food Hygiene Regulations. Their higher authority is their local District Health Board, not the local primary health organisation (see the New Zealand Food Safety Authority). | 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 have been stored in the appropriate places in the fridge – mince or chicken at the bottom and pasta on a higher shelf. This way juices from the raw chicken or mince will not contaminate other food. Pasta (no more than 24 hours old), mince/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, stovetops and microwaves were wiped, using a clean cloth and hot soapy water to remove dirt and bacteria. Dirt provides a medium for bacteria to thrive. 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 the bacteria that may have been present did not have a chance to contaminate my ingredients. Bacteria live and multiply in ‘dirt’.  Preparing ingredients: When preparing the mince/chicken, I used separate chopping boards and utensils to prevent cross-contamination. Bacteria transfer is made if moisture is present. If the mince/chicken contaminates other ingredients like the green pepper or onion, 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 mince/chicken thoroughly. I knew the chicken was cooked as I pierced a number of pieces through their thickest points to check that the juices run clear. If the chicken had still been pink, I would have cooked it for longer to ensure all bacteria present were killed. I knew the mince was cooked when it changed colour from pink to brown. The pasta is cooked close to serving time so it will be too hot for bacteria to grow and in addition does not give time for bacteria to grow. Bacteria are killed when temperatures reach 75ºC. So the cooking will kill any bacteria present.  Serving: I served the pasta dish 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.  Bacteria thrive in temperatures between above 4º and below 65ºC, so it is important to have food served above this temperature.  Reheating: When I am using leftover pasta I reheat it by plunging the pasta into a pot of boiling water for a few minutes. Pasta becomes an extremely high-risk food once cooked and reheated. It is important that any bacteria present are destroyed to avoid food poisoning. Bacteria need time, food and moisture to grow, and leftover pasta is a perfect place for bacteria.  Scenario B  Issue: A packet of ham from a supermarket deli was sold past its best-before date, therefore, it was unfit to eat and could have been dangerous to health.  To address this food handling issue, I would return to the supermarket with the ham in its original package as soon as I discovered that the ham was unfit to eat and explain the issue to the deli manager.  I would choose this strategy rather than the others because spoiled ham is a serious health issue, and someone could have become sick. I think if I had contacted the DHB, it would have created a delay putting more people at risk. A face-to-face meeting means the issue can be dealt with immediately.This action will alert the supermarket to the problem and they willremove any ham from the deli cabinet immediately, therefore ensuring no other customers will get sick from eating the ham. Since they have a Food Safety Plan, they will be able to check their procedures to make sure the problem does not occur again. The wider community can be assured this food handling issue will not happen again because the supermarket has been made aware that food has been sold that was unfit to eat, and the manager will check the documentation kept by the staff to identify how the ham became unfit to eat. The manager will also ensure that all the staff are trained in their procedures. This will guarantee that a similar food handling issue will not happen again, resulting in the community not getting a preventable illness.  Note: Most large food-based organisations such as supermarkets develop their own Food Safety Programmes or Food Control Plans, exempting them from the 1974 Food Hygiene Regulations. Their higher authority is their local District Health Board, not the local primary health organisation (see the New Zealand Food Safety Authority). |

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