

I



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

Exemplar for Internal Achievement Standard Technology Level 2

This exemplar supports assessment against:

Achievement Standard 91351

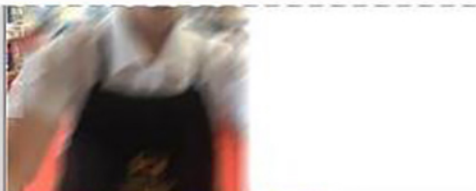
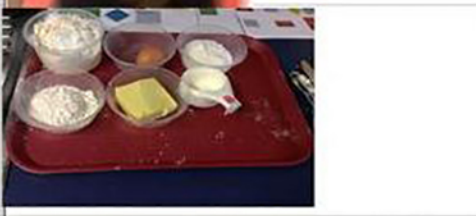




Implement advanced procedures to process a specified product

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




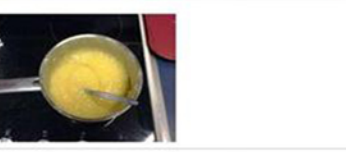

	Grade Boundary: Low Excellence
1.	<p>For Excellence, students must efficiently implement advanced procedures to process a specified product.</p> <p>This involves undertaking advanced procedures in a manner that economises time, effort, and materials.</p> <p>The student used advanced processing operations and tests to make a lemon meringue pie. A flow diagram enabled the efficient implementation of most procedures.</p> <p>Economy of time, effort, and materials is shown when the student weighed and mixed ingredients (1) (2) (4), dated and named the pastry (3), separated the eggs (5), sprayed the tin (6), rolled the pastry (7), stirred in the yolks and carried out other processes concurrently (8), sieved the filling (9), whisked the egg whites (10) and piped the meringue (11) (12).</p> <p>A lemon meringue pie that met the teacher-given specifications was made (12).</p> <p>For a more secure Excellence, the student could have been more efficient with timing operations. The teacher noted that the pastry shell was slightly undercooked (because the cartouche should have been taken off earlier and the shell kept in the oven longer). Also, testing for the colour of meringue while cooking would have revealed that the pie should have been taken out of the oven sooner.</p>


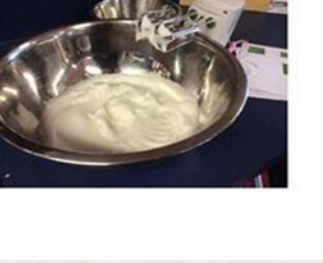





		
<p>Pastry Collect ingredients: 1 cup (150g) self raising flour ½ cup (75g) plain flour ½ cup (60g) custard powder 1/3 cup (75g) Chelsea Caster Sugar 125g unsalted butter, chilled and cubed 1 large egg, separated ¼ cup (60ml) ice cold water, approximately</p>		<p>weighing all my ingredients for the pastry before i started went well as it meant i could work efficiently so i could get my pastry made as it needed to rest in the fridge for 30 minutes</p> <p>[1]</p>
<p>Sieve flour, baking powder, custard powder, Chelsea Caster sugar. Rub butter until mixture resembles fine breadcrumbs. Add egg yolk and cold water and mix with knife until ingredients just come to a ball, shape to a ball. Wrap in cling film</p>		<p>Sieving the dry ingredients was good as the castor sugar had big chunks of sugar which meant they would be broken down once put through the sieve for the pastry. The pastry formed a nice ball as i did not add too much/not enough liquid to the dry ingredients.</p> <p>[2]</p>
<p>put in fridge for 30 minutes</p>		<p>i dated and named the pastry which meant it did not get used by other people and i knew which pastry was mine in the fridge.</p> <p>[3]</p>
<p>Collect and measure lemon filling ingredients: 2oz cornflour 400ml water 4 egg yolks 175g castor sugar 4 lemons, juiced and zest</p>		<p>All my ingredients were correctly weighed as i used a knife over the top to ensure it was the correct measurement</p> <p>[4]</p>
<p>Collect meringue ingredients: 5 egg whites 175g sugar</p>		<p>separating the egg whites and yolks went well as i did not waste any eggs as they were all separated.</p> <p>[5]</p>

<p>Mix lemon zest and juice with cornflour in pot.</p>
<p>Boil water in another pot. Then pour into lemon pot, stirring and returning to the heat to boil/thickened. Leave to cool slightly.</p>
<p>Meanwhile prepare tin with cooking spray and flour shaker. Flour the bench.</p>
<p>Take pastry out of the fridge</p>
<p>Roll out pastry and line the pastry tin with pastry.</p>
<p>Line pastry base with baking paper and baking beans.</p>










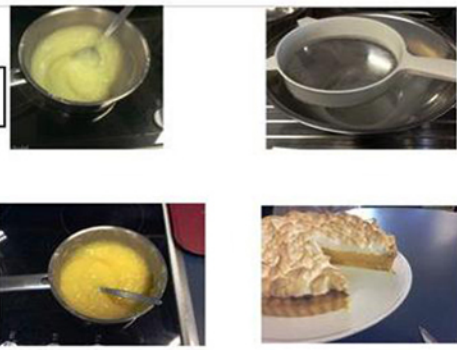


<p>i added more cornflour to the lemon juice mixture as it was a different consistency to what it usually looks like- too runny.</p>
<p>it thickened well and was not lumpy</p>
<p>i didn't use too much cooking spray and floured the tin so there was no grease line</p> <p>[6]</p>
<p>rolling the pastry went well as i did it in one go which meant the pastry was not over-worked</p>
<p>i trimmed the baking papers edges so it did not burn in the oven</p>

<p>Roll out pastry and line the pastry tin with pastry.</p>	<p>[7]</p>	<p>rolling the pastry went well as i did it in one go which meant the pastry was not over- worked</p>
<p>Line pastry base with baking paper and baking beans.</p>		<p>i trimmed the baking papers edges so it did not burn in the oven</p>
<p>Put in preheated oven at 200 degrees Celsius and fan bake for 10-15 minutes .</p>		<p>the pastry baked well in the oven because it did not shrink down from the sides of the tin. This was because the pastry rested in the fridge for 30 minutes</p>
<p>Meanwhile Quickly stir in egg yolks, fast! And the castor sugar and stir over a LOW heat until just simmering.</p>		<p>the egg yolks made the white thickened mixture nice and yellow in colour</p>
<p>Remove baking beans from the pastry , brush pastry with egg white then put in the oven and bake for another 5-10 minutes.</p>		<p>The pastry went golden brown once cooked because of the egg white and it looked like it had a shiny layer which meant that the pastry did not go soggy when i added the lemon filling.</p>
<p></p>		<p></p>

<p>Meanwhile Sieve lemon filling</p>	<p>[9]</p>	<p>all the lemon filling passed through the sieve so there was not much wastage left in the sieve</p>
<p>Remove pastry from oven.</p>		<p>i used oven gloves which meant i could get a good grip on the tin/pastry and not burn myself</p>
<p>Whisk egg whites to peaks.</p>		<p>the egg whites came to soft peaks which meant there was no foreign items in the egg whites such as egg yolk</p>
<p>Whisk in sugar a little bit at a time(1T) until glossy .</p>		<p>the meringue went well as it was glossy and the sugar was dissolved which meant there was not a grainy texture.</p>
<p>spoon in lemon filling. "rough" the top with a fork</p>		<p>it was good because my lemon filling had not cooled down before i put it in the pastry . This is good as then the meringue will cook from the warmth of the lemon filling as well as the oven from the top which browned the peaks.</p>
<p>Fill piping bag with meringue, pipe onto meringue</p>		<p>this went well as i piped small peaks all over the pie which help it cook quicker compared to spooning all the meringue on and made it look better in appearance.</p>
<p>put in oven at 150 degrees for10-15 minutes or until golden brown</p>		<p>i placed the lemon meringue pie into the oven on a hot tray , therefore the pie will cook from the bottom and from the top and this means it will not have a soggy pastry bottom.</p>
<p>remove from oven and take out of tin</p>		<p>the pie came off easily from the tin onto the serving plate as i used a pallet knife</p>
<p>wash bench tops sanitise surfaces</p>	<p></p>	<p></p>

	Grade Boundary: High Merit
2.	<p>For Merit, students must skilfully implement advanced procedures to process a specified product.</p> <p>This involves showing independence and accuracy when executing advanced procedures.</p> <p>The teacher verified (by annotating an assessment schedule) that the student skilfully and independently implemented advanced procedures when making a lemon meringue pie. The pie was made to specifications (1) with minimal advice and guidance from the teacher, and without needing help from anyone else. All processing operations and tests were undertaken in compliance with relevant health and safety practices.</p> <p>Accuracy was shown by cooking the base for the optimal time (2) and ensuring that it wasn't soggy (4), adhering the meringue to the filling (3) and ensuring that it looked attractive (9), cooking the meringue to within the accepted colour range (5), achieving an ideal ratio of components (6), matching the pie size and baking dish (7) and ensuring that the filling had a smooth consistency (8).</p> <p>To reach Excellence, there needs to be evidence of advanced procedures being efficiently implemented. The first meringue mixture included some egg yolk, causing the egg white foam not to form as required. More eggs were separated and the egg white mixture was beaten until it peaked. This repeated processing operation took more time, effort and materials.</p>

Specifications	did the Lemon meringue pie meet the specifications? how, justify	Evidence Eg photographic, results of sensory evaluation
1 ↓		
base cuts without crumbling	the base cut without crumbling because it was cooked correctly and was not dry therefore it did not crumble.	2 
meringue 'attached' to lemon filling	the meringue was attached to the lemon filling as I used a fork over the top of the lemon filling so the meringue would not slide off/ not stick. I piped the meringue to the very edge of the pastry crust which meant it would not detach	3 
has a base that is not soggy	The base was not soggy, I achieved this by brushing the pastry base with egg white before putting the pastry back into the oven to continue to cook without the baking beans	4 
has a meringue topping that is browned	the meringue was golden brown as I put the pie back into the oven to brown but watched it carefully so it didn't burn	5 
acceptable proportion of base to filling to meringue	The lemon meringue pie had a good portion of pastry, lemon filling and meringue as the pastry was not too thin/thick, and the lemon filling to the meringue was about even.	6 

pie fits flan dish	My lemon meringue pie fit the flan dish because the pastry went right to the top of the rim and it did not shrink once cooked.	7 
is edible.	my lemon meringue pie was edible because five other people ate it and completed a sensory testing (hedonic scale)	
smooth consistency of the lemon filling	My lemon meringue pies' filling was a smooth consistency as I used a metal spoon when stirring so it did not catch on the bottom of the pot. I also put it through a sieve which removed any lumps and made it smooth.	8 
pipe the meringue on top to improve appearance	I used a piping bag to pipe the meringue onto the pie rather than spooning it on as it improved the appearance because it made nice small peaks.	9 
nice lemon taste	I used the zest and lemon juice of fresh lemons (not the fake ones from the supermarket) to give a nice lemon taste to the lemon filling. I sweetened the lemon filling with sugar as lemon is acidic.	

	Grade Boundary: Low Merit
3.	<p>For Merit, students must skilfully implement advanced procedures to process a specified product.</p> <p>This involves showing independence and accuracy when executing advanced procedures.</p> <p>The student created a flow diagram showing the sequenced processing operations and tests that they would follow to make a glass panel. These advanced procedures were successfully implemented.</p> <p>Observational check sheets (1) (2) (3) (4) provide evidence that, overall, the student showed independence and accuracy when undertaking advanced procedures to process glass to make a glass panel. They undertook a range of appropriate tests to ensure that the panel met specifications (4). All operations complied with relevant health and safety practices, as listed in the check sheet (3).</p> <p>For a more secure Merit, the student would need to achieve positive processing operation and testing outcomes with a greater degree of independence. That is, without assistance they would need to skilfully distribute the glass powder onto the glass (1) (2), and ensure that angles were at 90 degrees on the square pieces (2) and smooth edges (2).</p> <p>Also, the procedures associated with the pattern/form/shape and firing of the tiles should be more accurate (1) (2).</p>

[1] Processing operations – glass panels	Accuracy	Independence
Changing the profiles of glass	<i>G.A.</i>	<i>G.A.</i>
Create pattern and colour		<i>Needed some help distributing powder on to glass to get desired effect</i>
Fusing organic glass shapes	<i>G.A.</i>	<i>G.A.</i>
incorporating curved and linear patterns	<i>G.A.</i>	<i>G.A.</i>
Hanging glass panel	<i>G.A.</i>	<i>G.A.</i>
Firing glass	<i>A few bubbles Some kiln wash stuck to glass</i>	

[2] Tests	Accuracy	Independence
Measuring & marking out - parallel lines - 100mmx100mm squares - holes in position	<i>G.A.</i>	<i>Needed some help checking corners were at 90degrees</i>
Cutting - visually check score lines - clean/splinter free cut	<i>G.A.</i>	<i>G.A.</i>
Shaping/forming glass - fired to specifications	<i>Kiln wash not checked for being adequately dried</i>	<i>G.A.</i>
Shaping/forming fibreboard mould - even edges -no undercuts	<i>G.A.</i>	<i>G.A.</i>
Glass patterns/forms/textures - powder distributed onto panel so colour is consistent/ even/no transparency etc	<i>The end effect was not quite as planned</i>	<i>Needed to be reshown how to distribute the glass powder evenly</i>
Stringer shapes - pulled to desired pattern and form	<i>G.A.</i>	<i>G.A.</i>
Drilling holes in glass - consistent in shape/size/placement	<i>G.A.</i>	<i>G.A.</i>
Finishing - smooth edges	<i>G.A.</i>	<i>Had to be prompted to ensure all sharp edges were removed</i>

[3] Health & Safety Guidelines	Needs guidance	Independently followed
Googles worn when cutting and grinding glass	<i>Had to be reminded on a few occasions</i>	X
Glass splinters removed from work	<i>G.A.</i>	<i>G.A.</i>
Air muffs used on machinery	<i>Had to be reminded on a few occasions</i>	<i>G.A.</i>
Protective clothing worn when opening the kiln	<i>G.A.</i>	<i>G.A.</i>
Individual machine guidelines followed	<i>G.A.</i>	<i>G.A.</i>
Glass transported safely	<i>G.A.</i>	<i>G.A.</i>
Dust masks worn when cutting fibre-board and working with kiln paper	<i>G.A.</i>	<i>G.A.</i>

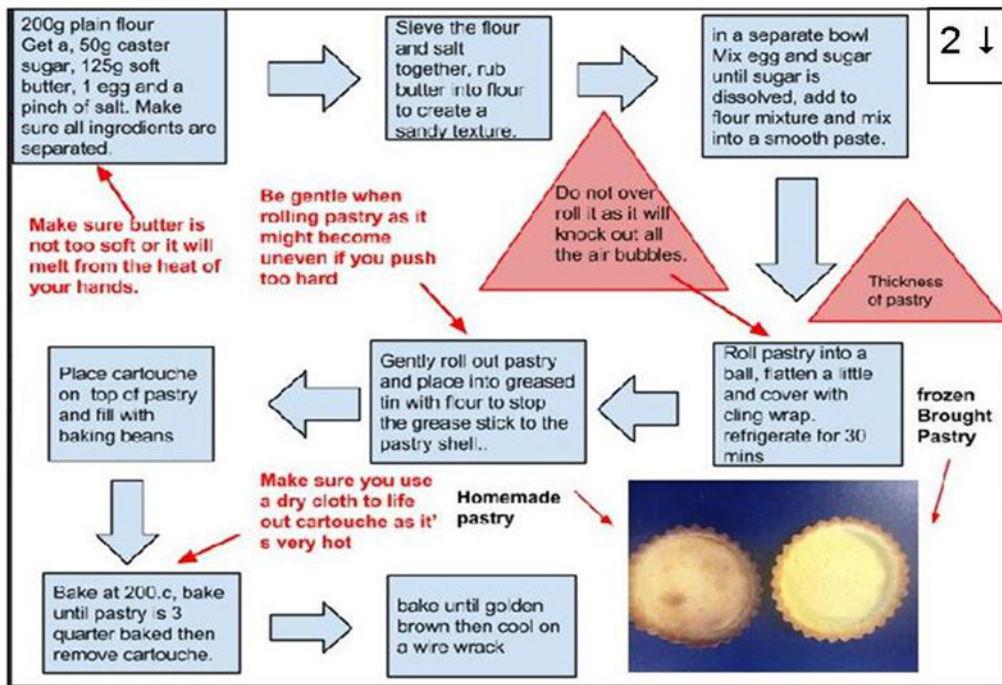
[4] Specifications	Not met	Met
Finished tile is 300mmX300mm		<i>G.A.</i>
Includes 100mmX100mm decorative glass squares		<i>G.A.</i>
Includes curved and linear shapes		<i>G.A.</i>
Includes texture		<i>G.A.</i>
Hangs squarely from 4 holes		<i>G.A.</i>

	Grade Boundary: High Achieved
4.	<p>For Achieved, students must implement advanced procedures to process a specified product.</p> <p>This involves:</p> <ul style="list-style-type: none"> • creating and implementing a flow diagram, including processing operations and tests, with appropriate sequencing • undertaking processing operations and tests that comply with health and safety documentation. <p>Hazard analysis and critical control point (HACCP) documentation outlines the desired approach to identifying, evaluating and controlling hazards when processing ingredients to make a lemon meringue pie (1).</p> <p>The student created flow diagrams with appropriate sequencing to show the processing operations and tests that they intended to follow when making their lemon meringue pie (2).</p> <p>The processes and tests as outlined in the flow diagram were implemented. A health and safety checklist and supporting documentation was created to validate that potential risks (as identified in the HACCP) were mitigated (3) (4). A lemon meringue that met specifications was produced (5).</p> <p>To reach Merit, the student would need to achieve positive process and testing outcomes with more accuracy. The pastry was slightly browner than the desired colour, and the colour of the cooked meringue was slightly uneven.</p>

[1] HACCP Plan

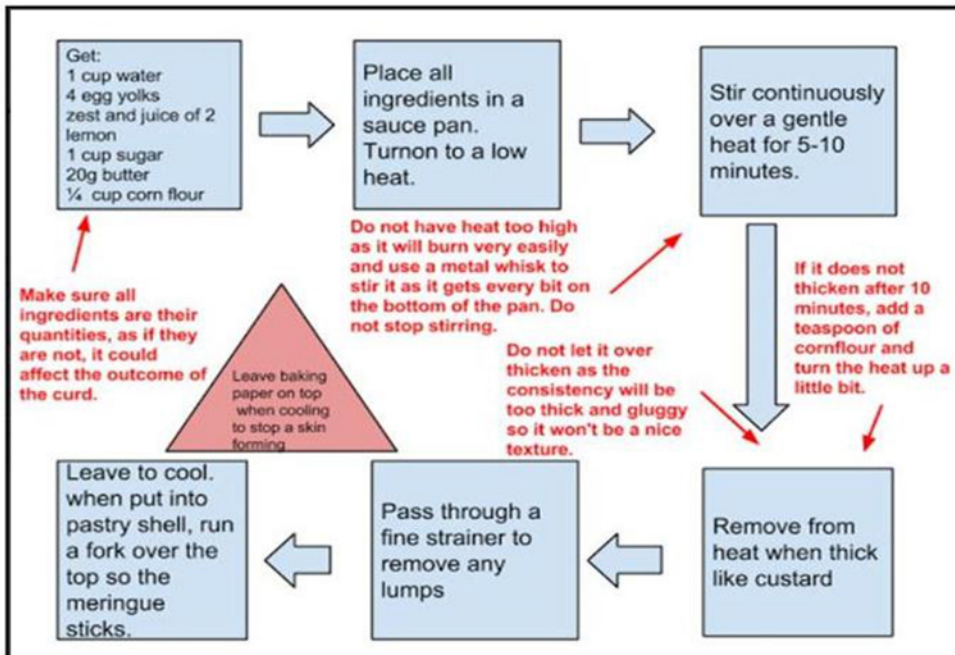
	PROCESS	HAZARD	RISK LEVEL	CONTROL STEPS	CCP	TEST FOR CONTROL
1	Collect eggs	Eggs may be off or contain salmonella	High	Throw away cracked eggs, keep them in the fridge away from other ingredients	yes	Use water method
2	Weigh out ingredients	Bowls or pots may be dirty	Low	Wash everything thoroughly when done using them	no	Visual check
3	Weigh and sift dry ingredients	May contain foreign bodies	Low	Store dry ingredients in airtight containers	no	Visual check
	Cut butter into small pieces	Physical, knife could cut hand and blood could contaminate butter	Low	Be very careful whilst cutting butter	yes	Steady hand, visual check
4	Rub butter into flour	Physical contamination, hands may be dirty	high	Wash hands and use clean equipment	yes	Food handler needs to have clean hands before they begin working with food
5	Roll out pastry	Physical contamination, hair could get into pastry	high	Use a hair net, covering all your hair	yes	You should use a hair net before beginning to work with food
6	Grate lemon zest	Dirt on lemon skin could contaminate food	low	Scrub all dirt off before you grate zest	yes	Visual check
7	Separate egg yolk and white	Physical contamination, hands could be dirty	low	Hands should be washed at all times	yes	Always have clean hands when handling food
8	Leave egg whites to sit at room temperature	If eggs are left for too long, they could go off	low	If eggs are already room temp, put them in the fridge with glad wrap as they could get tainted with other products in fridge. Get them out half an hour before you use them	no	Never leave food exposed for long if they can go off easily
9	Spoon meringue into piping bag	Physical contamination-hands could be dirty	low	Always keep hands clean	yes	When you get food on your hands from handling other components, wash them
10	Put pie in/ get the pie out of oven	Physical contamination-tea towel/ oven mitt could be dirty	low	When handling the pie when it's hot try to avoid getting the edges of the towel in the pie, make sure you are safe so you do not burn your hands	no	Visual check

Conclusion: A lemon meringue pie isn't a particularly high risk food compared to other foods such as seafood or milk products but it does contain a food that can be a serious risk: eggs. The only things that you really need to consider for a lemon meringue pie is the eggs and yourself, as long as you keep yourself clean and know the eggs are fresh then you should be okay.



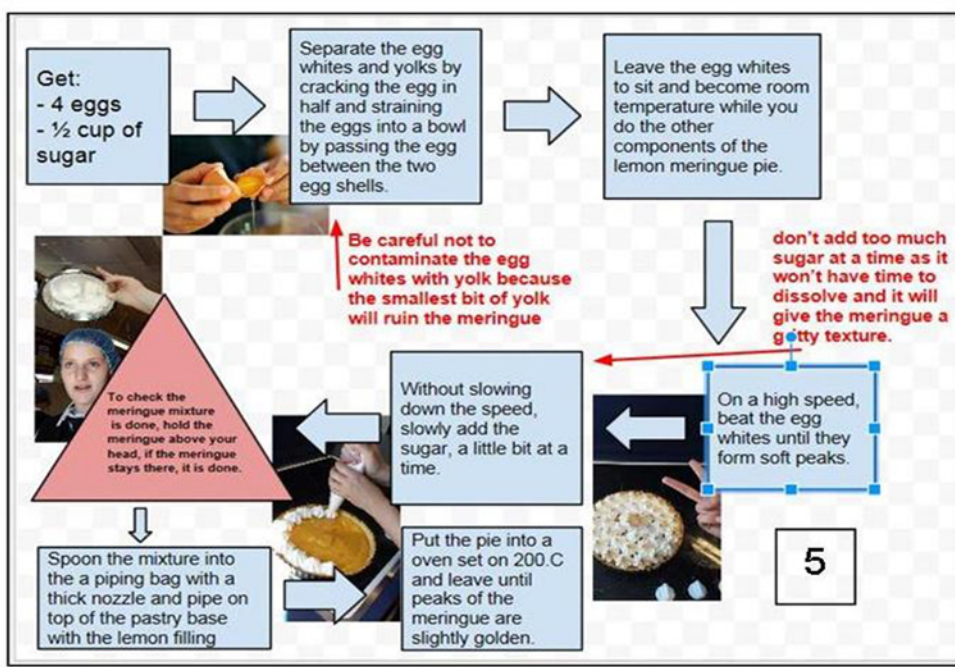
My health & safety checks **3**

Constantly wash hands	✓
Any cuts covered up	✓
Hairnet used	✓
Check expiry dates	✓
Equipment clean	✓
Eggs sink	✓
Eggs not cracked	✓
No foreign bodies in flour	✓
Butter not rancid	✓
Scrub lemon clean	✓
Keep egg whites in fridge	✓



Testing the egg for freshness. (if it floats, its rotten, but is fresh if it sinks. Both eggs sunk! 😊)

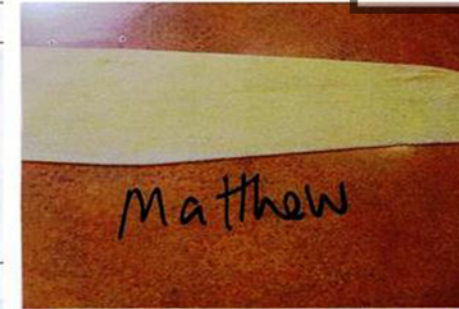
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	Grade Boundary: Low Achieved
5.	<p>For Achieved, students must implement advanced procedures to process a specified product.</p> <p>This involves:</p> <ul style="list-style-type: none"> • creating and implementing a flow diagram, including processing operations and tests, with appropriate sequencing • undertaking processing operations and tests that comply with health and safety documentation. <p>Hazard analysis and critical control point (HACCP) documentation outlines the desired approach to identifying, evaluating and controlling hazards when processing ingredients to make a lasagne (1).</p> <p>The student created flow diagrams with appropriate sequencing to show the processing operations and tests that they intended to follow when making their lasagne (3).</p> <p>The processes and tests were implemented as outlined in the flow diagrams. A lasagne that mainly met specifications was produced (2).</p> <p>For a more secure Achieved, the béchamel sauce and cheese should be applied evenly and in sufficient quantity. Inserting a test point on the flowchart for checking quantities and coverage could have ensured the associated specifications were more clearly met. Also, taste testing for flavour at an earlier stage would ensure that the meat was the desired saltiness.</p>

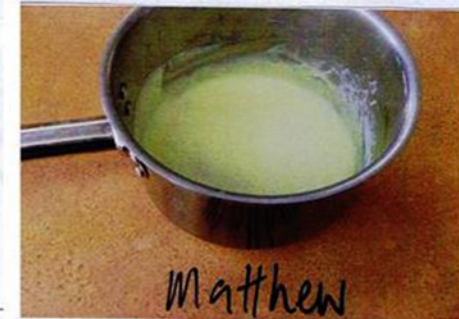
	Identify the hazard	Action to be taken	Establish CCPs	Monitor
Purchase - mince - milk - eggs - butter - cheese	1 Bacterial Contamination - salmonella	Purchase from a reliable vendor	See flow chart	See flow chart
Delivery - mince - milk - eggs - butter - cheese	* Damaged packaging (boxes/containers) * Cracked eggs * Use by dates	* Repair damage / ask for new delivery or replace items * refrigerate to 2-4°C	See flow chart	See flow chart
Storage - mince - eggs - milk - butter - cheese - flour - Tomato Paste - Vegetables	* Correct room temp store mince, eggs, veges, milk, butter, cheese, Tomato paste in fridge - 2-4°C * Store flour in pantry make sure out of sun in a cool pantry.	* Check temperature gage in refrigerator to make sure its 2-4°C * Make sure pantry is cool and that no direct light is shining onto food items.	See flow chart	See flow chart

Preparation - cooking - Pasta - Meat Filling - chilling - Béchamel sauce - chilling - topping	* 2 boards to prevent cross contamination between mince and vegetables. * make sure table is sanitized * Make sure equipment is clean	* use two benches boards to prevent cross contamination * Sanitize the bench make sure area is clean. * wash/clean equipment to prevent cross contamination.	See flow chart	See flow chart
Service - Beef Lasagne or Vegetarian Lasagne	* Dirty Plate	* Clean plate thoroughly and with dish washing liquid. * plate + knives & forks.	See flow chart	See flow chart



①. pasta was thin and smooth light colour and very stretchy. this pasta was taken down to number two on the pasta machine.

②. mince had minimal to no fat left. Rich tomato tasted a little salty



③. the béchamel sauce was even and smooth

④. the pasta was a bit crunchy as wasn't layered properly

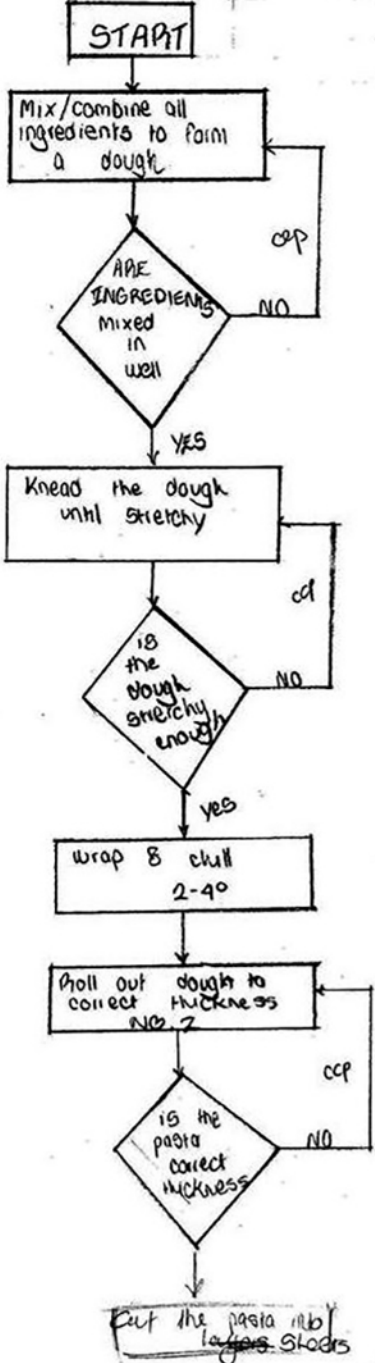


⑤. lightly spread the cheese wasn't spread properly. Not enough cheese was applied.

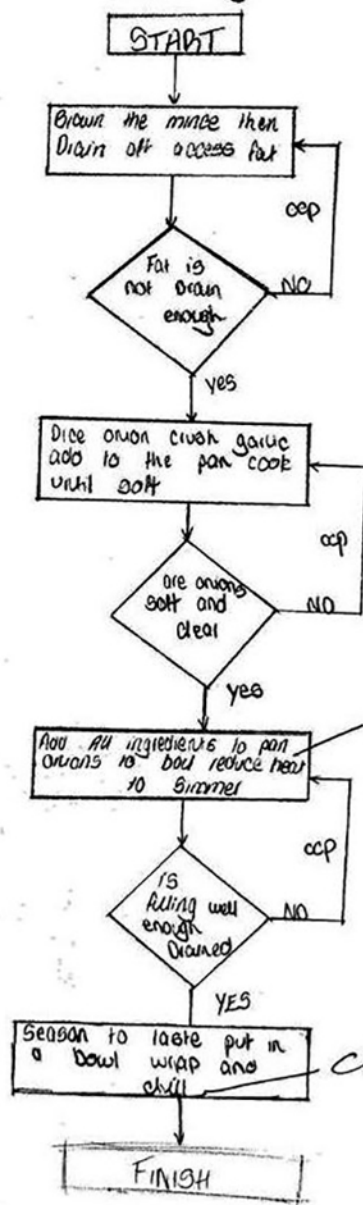
⑥. evenly layered with a shiny golden brown coating.

3

Yeast Dough



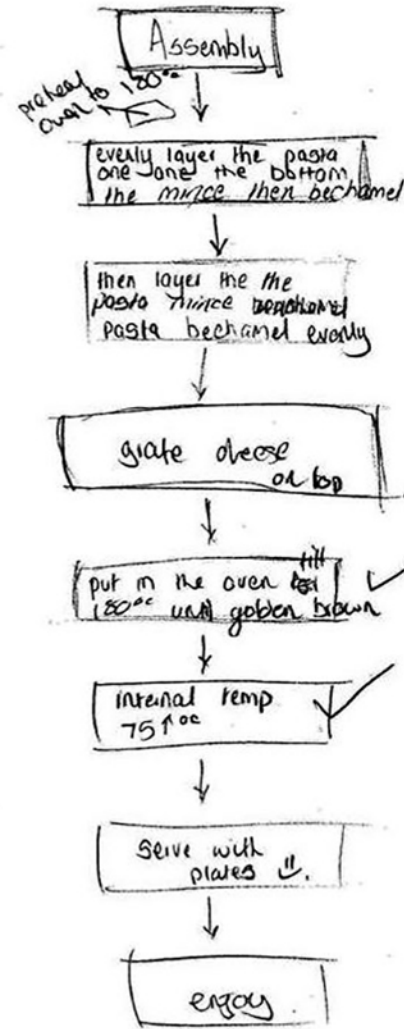
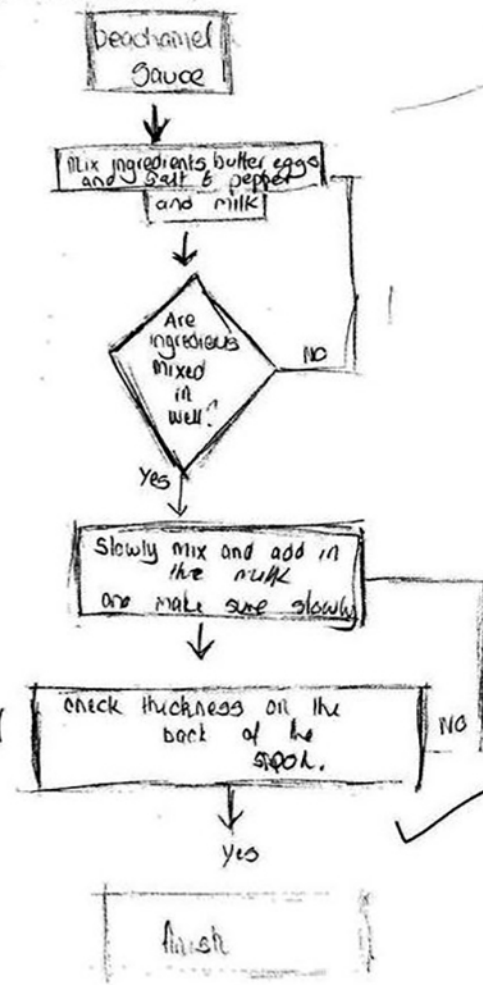
Mince filling



ccp. cook until 71°C.

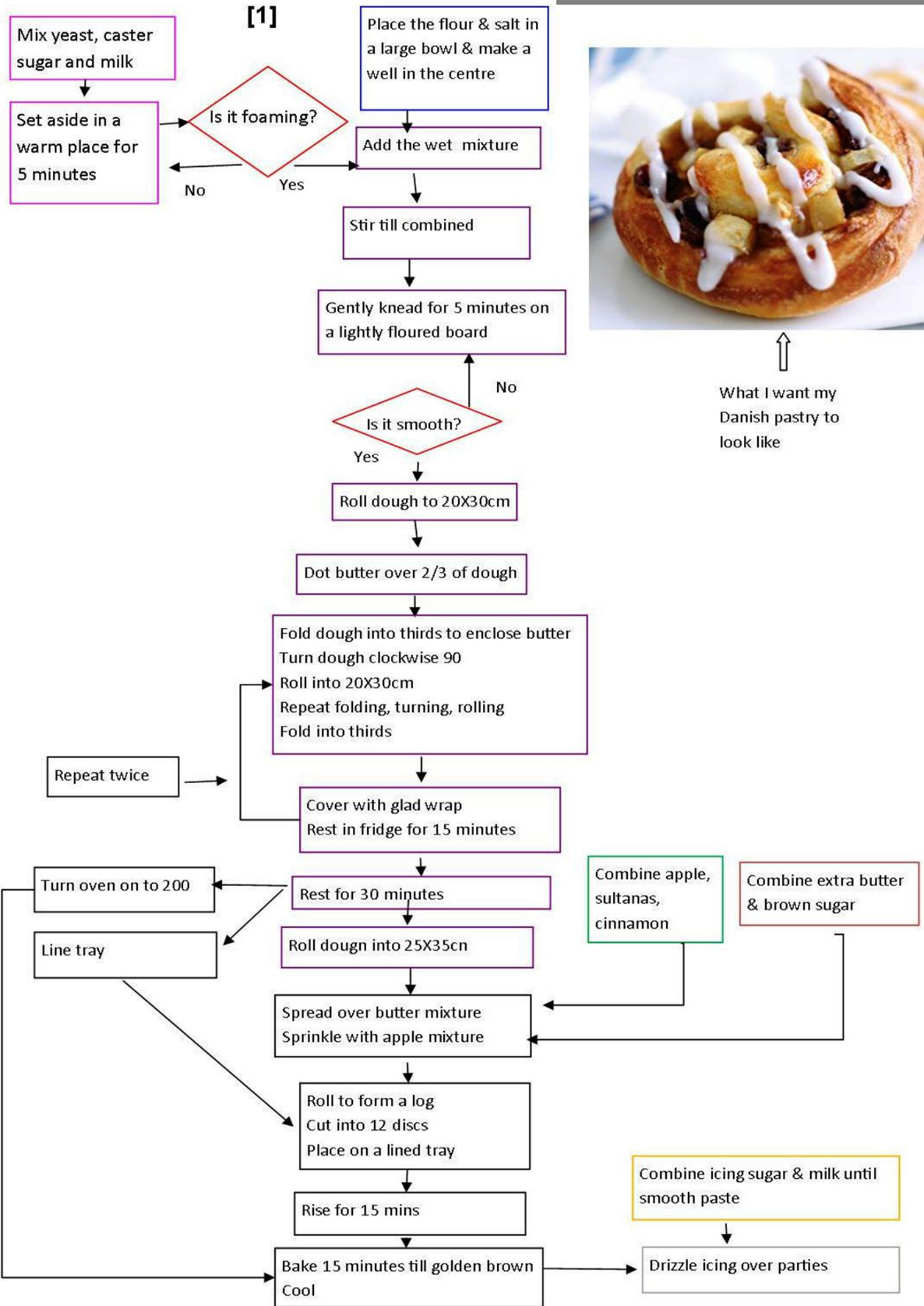
ccp 2-4°C.

Lasagne Flowchart



	Grade Boundary: High Not Achieved
6.	<p>For Achieved, students must implement advanced procedures to process a specified product.</p> <p>This involves:</p> <ul style="list-style-type: none"> • creating and implementing a flow diagram, including processing operations and tests, with appropriate sequencing • undertaking processing operations and tests that comply with health and safety documentation. <p>The student created a flow diagram with appropriate sequencing to show the processing operations and tests that they intended to follow when making Danish pastries (1).</p> <p>The processes and tests as outlined in the flow diagram were implemented. Danish pastries that met some specifications was produced (2). The teacher verified that hazard analysis and critical control point (HACCP) documentation was followed.</p> <p>To reach Achieved, the student would need to implement some advanced procedures with more positive results. The pastry would need to be more flaky and browned evenly, the fruit filling should be less spicy, the pastries would need to be an even size, and the icing would need to be applied neatly (2).</p> <p>Creating a flow diagram, including more detail of the processing operations to be carried out and the tests that should be applied, would help to ensure that Danish pastries were produced to specifications.</p>

[1]



↑
What I want my Danish pastry to look like

[2] Specification	Student comment	Teacher comment
Pastry is flaky	My pastry wasn't as flaky as I would have liked it	<p><i>Sifting the flour would have helped</i></p> <p><i>Butter should have been cold</i></p> <p><i>Flour and wet mix not properly combined</i></p> <p><i>More care needed with the repeated folding, rolling and resting.</i></p>
Pastry is browned to within range	Mine was a bit uneven	<p><i>Even rolling would have helped to prevent this - the thickness of the pastry should have been checked. A common mistake is that it is thinner on the outsides.</i></p>
Has a sweet and spicy fruit filling	Was a bit too spicy I think I used 2 dessertspoons of cinnamon instead of 2 teaspoons.	<p><i>The spicy fruit mixture should have been taste tested before it was added to the pastry.</i></p>
Acceptable proportion of pastry to filling	Yes	<p><i>Perfect!</i></p>
Each Danish is similar in size	Mostly	<p><i>The final rectangle was not the desired dimensions. The log should have been measured and divided evenly (light cutting lines could have been applied).</i></p>
The icing is dribbled over the pastry	Yes - a bit blotchy	<p><i>If the icing was put in a plastic bag, it could have been piped over. This would have made it look neater.</i></p>