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92015



Mana Tohu Mātauranga o Aotearoa  
New Zealand Qualifications Authority

# Level 1 Materials and Processing Technology 2024

## 92015 Demonstrate understanding of techniques selected for a feasible Materials and Processing Technology outcome

Credits: Four

### ASSESSMENT TASK

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of techniques selected for a feasible Materials and Processing Technology outcome.	Explain techniques selected for a feasible Materials and Processing Technology outcome.	Evaluate techniques selected for a feasible Materials and Processing Technology outcome.

Refer to this document to respond to the task for Materials and Processing Technology 92015.

Check that this document includes page 2.

Do not use chatbots, generative AI, or other tools that can automatically generate content.

**DO NOT TAKE THESE ASSESSMENT MATERIALS OUT OF THE ASSESSMENT ROOM.**

Merit

TOTAL 06

## INSTRUCTIONS

Respond to the following task about how you trialled and selected techniques for the design of a feasible outcome. Support your answers with text or images. Your evidence should be presented in the form of a slideshow or visual timeline. You should aim to write no more than **1200 words in total**. If you choose to respond orally, your response should be no longer than **4 minutes**.

## ASSESSMENT TASK

- (a) Provide an image or images of your feasible outcome and briefly describe its specifications, including physical and functional attributes, the end user(s), and your product's intended environment.

### BRIEF: Conceptual statement

My product is spring rolls. I'm making this finger food for a cultural festival for my school. The reason for this is to contribute to the festival by bringing a tasty dish for everyone to try. This allows everyone to enjoy cultural food and try new dishes. This event will be happening for a cultural week at my school to celebrate differences and try things from everyone's culture, in preparation I have tried 3 different food products, arancini balls, spring rolls, and dumplings. I have chosen to make spring rolls because of their ideal attributes such as, even shape and size, crisp, soft and chewy interior. I will be panfrying my spring rolls so it can reach the perfect consistency without being coated in oil. This will be made in the [redacted] kitchens during my food technology class and served at the shared cultural festival outside the [redacted]. My end user will be the students at [redacted] high school, who will eat my products. The event will happen in 2 weeks on the 2nd of September.



Attributes	Specifications
Holds together well when eaten (F)	The filling is fully contained in the wrapper and does not spill out when bitten into
Golden brown exterior (P)	Has a golden brown exterior to match the color golden brown color on the color chart
Crispy exterior (F)	Spring roll is dry to the touch with a crisp exterior coating
Soft and moist inside, chewy when bitten into. (P)	Soft chewy texture when bitten, wrapper blends with the filling.
Good ratio of filling (P)	Spring roll is full and has a higher ratio of filling the wrapper
Even size and shape (F/P)	The overall batch of spring rolls are an even size and shape to look consistent

(b) Choose **TWO** of the functional attributes of your feasible outcome.

For each functional attribute:

- describe the functional attribute you have chosen
- describe at least two techniques trialled for the functional attribute
- explain how you decided which of these techniques would be most suitable for the feasible outcome.

### ***Function 1***

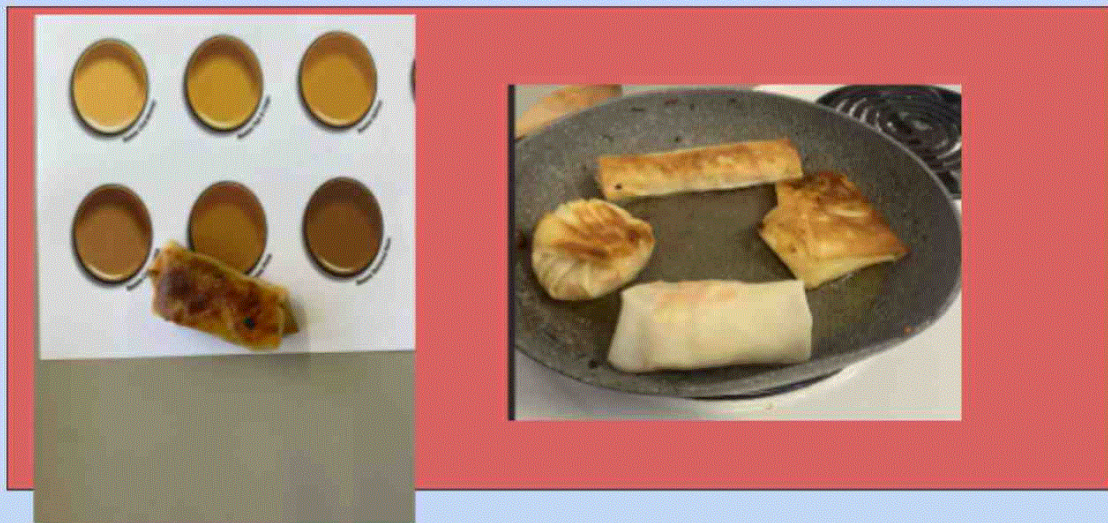
Crispy exterior, this is when the outer layer of my feasible outcome is crunchy to bite into. Having a crispy exterior on a product allows it to be more pleasant and less bland in color. To achieve this I will use a form of oil frying or baking/air frying in order to have a more appealing and aesthetically pleasing outcome.



I used 2 methods of cooking, pan frying and air frying. Both the pan frying and the air frying allowed my product to gain a brown or yellow color on the outside, it also helped



build its outer shell to be crispier and crunchier. The air frying allowed my spring rolls to be crunchy but also made them quite flaky and hard. The pan frying however made the spring rolls much crispier, the use of oil in the pan allowed them to gain a crust that could be hard on the outside but soft on the inside. [redacted]'s feedback for the air-fried spring rolls was; "Your spring rolls were great but were not as crispy as hoped." [redacted] commented on the pan/shallow fried spring rolls stating; "The shallow fry was super golden brown and crisp with a super nice flavor." These two pieces of feedback helped me make the decision for my feasible outcome.



Compared to the air-fried spring rolls, the pan-fried ones were much crispier. People enjoyed the pan-fried spring rolls more than the air-fried ones because of the pleasant taste and texture of the crispy outer shell. Most of my stakeholder feedback was positive when I made the shallow fried spring rolls, compared to the air-fried spring rolls that people generally agreed were more flaky and hard than crispy. Choosing the pan-fried technique will help me develop the spring rolls to the best that they can be.

### ***Function 2***

Even size and shape. To make sure they are even and can be held, they should be the size of a small finger food. To achieve this attribute I will have to ensure that my filling is consistent with sizing and that my filling should be wrapped in similar ways.





To make sure my spring rolls are an even size and shape I used two techniques to try to find the one that would be best suited. Slicing or using a food processor. When slicing I noticed that the size of the vegetables contributed to the spring rolls shape, the bigger the filling, the harder it was to get uniform spring rolls that were even in both size and shape. However, when using the food processor, they were much more thinly chopped, allowing me to use the exact amount of filling that I needed to get them into the desired shape. When using the food processor Mrs [REDACTED] commented; "The spring rolls like uniform in size and color, easy to pick up." A comment from [REDACTED] regarding the food processed filling; "These spring rolls were perfectly even and small, making them easy to eat."



I ended up choosing the food processing technique, using this allowed my filling to be even on the inside and much easier to eat than sliced carrots or other vegetables poking out, this gave the filling a nice texture inside and made it much easier to wrap as I could control the amount of filling I could fit in one spring roll. This was the best choice for my spring rolls it made them even in shape and size, they were all equally plump with filling and exactly 4 centimeters long each, making them a good finger food.



████████████████████


If I had chosen the sliced vegetables instead of the finely chopped, my spring rolls would not be different sizes and volumes. This is why I stuck to a filling that would allow me to wrap the product in the most even way.

(c) How did you use at least two different stakeholders' feedback when choosing techniques related to your feasible outcome?

My two stakeholders commented on my feasible outcome, ██████ stated that she thought they were very nice and had a crisp exterior, and she also mentioned that the flavor of the filling was spread throughout thanks to the food processor which thinned the vegetables. The feedback she has given me allowed me to be sure of the technique I was using, many stakeholders commented on the flavor being enhanced from the food processor. This allowed me to make the best decision for my feasible outcome. ██████ also commented that she liked the crispy exterior on the spring rolls, which were made by shallow frying, since I knew they were a liked technique from multiple stakeholders I also made the decision to include it for my final product.

Mrs ██████ also commented on how the filling was finely chopped, mentioning that it wouldn't spill when bitten due to it being spread thoroughly. This helped me choose my food processing technique since it was agreeable to be the best outcome from multiple stakeholders.





The Spring Rolls look uniform in size and colour, easy to pick up and eat. They are hot which is really appealing for a winter shared lunch. The filling is finely cut so it doesn't spill out when bitten.

The shallow fry was very nice & I couldn't stop eating them, they had a crisp exterior & were super flavourful thanks to the food processor.

## Merit

**Subject:** Materials and Processing Technology

**Standard:** 92015

**Total score:** 06

Grade score	Marker commentary
M6	The candidate has compared the most appropriate techniques to make an informed decision for the outcome. The response has high quality feedback from one stakeholder who is an expert (teacher), but the second stakeholder is a peer who is not an expert or the end user. The candidate's grade was not affected, but where images of text are included in a submission, care should be taken that these are legible.