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Teacher: Carolyn Norquay

Aim: To develop and produce to prototype stage a range of biscuits aimed at teenagers aged 13 -18 years. It had to have the potential to be processed on manufacturing line 3 at Griffins Foods Limited manufacturing plant.

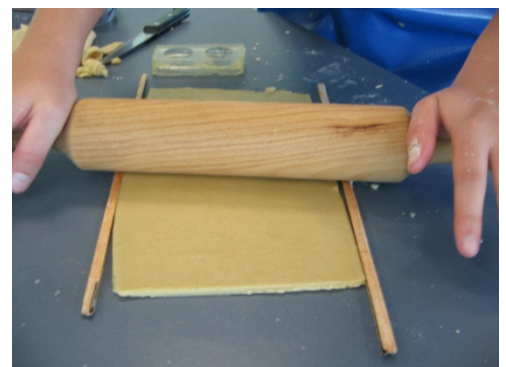
This was worth achieving because we got to work closely with Shelley Banham from Griffins, and we learnt a lot about applying our product to the production line at Griffins. Griffins have various check points and methods that they use which we had to try our best to apply what they do in the factory to what we do in our kitchen at school.

After we received the context from Shelley we:

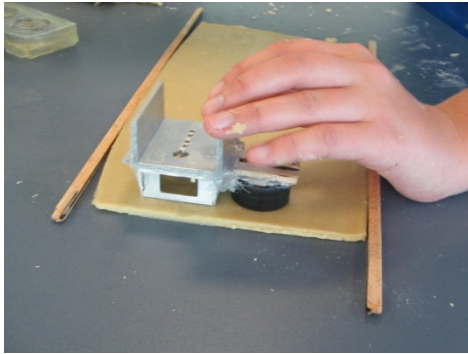
- Did research around who teenagers are
- Conducted market and consumer research: we did a supermarket analysis to see if there were any biscuits aimed at teenagers on the market, which there wasn't. We also did some research into why teenagers like certain products.
- Found out about Line 3 at Griffins and what it is capable of doing
- Came up with an issue
- Went through our research to find the main factors what were likely to affect the outcome of the project
- Wrote our initial brief
- Came up with some concepts
- Evaluated concepts against brief and selected our two biscuits
- Did some research on what our packaging needs to have and came up with some packaging concepts
- Got some stakeholder feedback on our concepts
- Tested and trialed our products
- Developed prototype as close to a manufactured product as we could
- Final sensory evaluation
- Developed final packaging

Problems

One of our problems that we came across was trying to keep the dough the same height. For our biscuits we have come up with a way to ensure that the dough is the same height, and the biscuits are the same shape. To keep it the same height we have put two 4mm sticks to put on either side of the dough. By rolling the rolling pin over the two sticks the dough will be the same height. Originally we were using a tape measure to check whether the dough was 4mm high or not.



Another problem that we came across was trying to keep the biscuits the same shape. To keep the biscuits the same shape Estelle and Estelle's Dad made a cookie cutter. There is one rectangle which cuts out the main bit, and originally I had 2 separate bits to cut out the screen and the clicker. Estelle and her dad managed to make a new cutter which cuts out the screen and the clicker at the same time. This means that the distance between the clicker and the screen will be the same each time.



We also had a problem moving the dough onto the tray after it had been cut. We decided to try rolling the dough and cutting the dough

out on baking paper. We then remove the excess dough. This means that the dough isn't moved around to be put on the tray before they go in the oven. This allows the biscuit to stay the same shape. As the dough is really flexible and fragile, if the dough is moved before it is cooked it can change shape meaning it won't look the same each time.



Another problem we faced was keeping the chocolate as evenly spread as I can each time. At Griffins they use a special machine called an enrober to put the chocolate on the back of their biscuits. This means that the chocolate is evenly spread, and has the same amount of chocolate each time. In order to keep the chocolate as even as we can, and to try keep the same amount of chocolate on the biscuits each time, we used a method that Shelley taught us.

1. Melt the chocolate
2. Put baking paper on an oven tray, and pour chocolate on top.
3. Lay a cooling rack over the chocolate and place biscuit onto rack.
4. Press the biscuit down into the chocolate and remove.

We have learnt that if we put the oven tray in the oven (turned on) while we melt the chocolate, and then remove it once the chocolate is melted; it stops the chocolate from setting again while we are using it to coat the biscuits.

We also had a problem with trying to keep the biscuits the same colour. We tried putting baking paper over the top of the biscuits. This kept the colour of the biscuits more even, so the biscuits all looked more alike.