Madhurima Guthie
Addison Haynie
Saskia Knotenbelt
Tessa Dalgety-Evans
Samuel Marsden Collegiate School

To develop one or more novel chocolate products with a unique selling point (something that makes it different from similar products currently on the market), that is consistent with the Whittaker’s range and brand values.

 instructibles
1. Measure out 100g of chosen chocolate on the scales/weights
2. Make a hot water bath (hot water in a jar with the chocolate in a “bain-marie”)
3. Place broken up pieces of chocolate into the (preheated) metal jug, sitting in the bath
4. Stir mix with a rubber spatula until chocolate is melted and glassy. Make sure NO WATER gets into the chocolate mix. Has to reach a certain temperature depending on type of chocolate (see graph below)
5. Take metal jug out of water bath and wipe down the water on the jug on bench
6. Get chosen flavour out with a pipette
7. Always place one drop at a time into the melted chocolate mix. (in a regular pipette, each drop is 0.025g)
8. Mix in flavour. Taste test each time you put in a drop. Note down final inclusion (e.g. if you dropped in 5 drops then you put in 0.1 per 100g)
9. Once happy with flavour, get the ice bath/cool water ready
10. Replace the hot water with the cold water in the bath
11. Keep stirring, scraping down EVERYTHING off the sides of the metal jug as chocolate on the sides cool down the fastest. Mix hard and fast
12. Use the rubber gun to keep stirring temperature constant (below for cooling temperature)
13. Once temperature has cooled to the right temp, quickly pour into moulds

Chocolates for Testing:
After two trial sessions where we tested 28 flavours (see report), we had officially decided that the top four flavours we were going to use for taste testing on our target market would be only 1 flavour was chosen from each of these 4 flavoured chocolates.

1. Plain Pomegranate Liquor with 200g of dark chocolate
2. Passion fruit liquor, Passion fruit powder and Guava with 200g of dark chocolate
3. Guava juice and Green kiwi fruit powder with 200g of dark chocolate
4. Chilli liquid and Guava juice with 200g of dark chocolate

Notes:
- We feel like we have stuck to our target market of women during this project, as we chose our chocolate thoroughly as we noticed all through surveying. We stuck to this target market throughout when testing (both teenage and adult women) and also during packaging. We used heart shaped chocolates and used a single silver, pink and green colour scheme to keep it elegant.
- A large refinement our final prototype had which wasn’t in our brief was the pomegranate flavouring. This was thanks to our mentor as we received many flavours other than guava but we ended up deciding to go with the pomegranate because of the feedback from the surveys. We also thought of another idea a bit late (after the surveys had been conducted). A tropical fruit chocolate. Either with a soft centre sugar or just the flavouring in hard chocolate, we went to add a passion fruit or mango flavouring to the chocolate.

Conclusions:
We went to say thank you to NZFSF (James Morgan) and the Royal Society (Jason McKenzie) for organising the product development challenge, sponsorship and judging. Also we want to thank our mentor Morag Howard, who gave us all the guidance and helped us in the making of the chocolate. Without her, we would have been unable to make such a great product. Some final thank you go to our teachers Gabrielle Ginn, John Denton and Wendy Carroll who have been there through it all, making us feel comfortable and ready to make the chocolate. We hope that our ideas are going to be used to make an even better product. We want to do this for our school and for our teachers to get them to have a break for their hard work. We really hope that everyone who tries our chocolate enjoys it and that our school gets to make it as well.

Our sponsorship was from the NZFSF Nutrition Special Interest Group (Ann Hayman and Jenny D"avid)