**Issue:** Through our research, we have identified that there are not many options for athletes to purchase healthier snack foods before or after exercise or sports games.

**Aim:** to create an extension to Sherratt Ingredients pre-existing bulk muffin mix that contains a high vegetable fibre and low fat content. The final muffin will be suitable for consuming before or after exercising and be targeted particularly at teenage athletes to boost and sustain energy levels.

**Initial Attributes:** Our bulk muffin mix must: have a high vegetable fibre and low fat content, be suitable for teenage athletes, be suitable to be manufactured at Sherratt Ingredients premises, free from peanuts, tree nuts, other nut allergens, sesame and no added MSG.

The final muffin must have a shelf life of at least 4 days after being made, appeal to the target market and contain additional ingredients that promote health and well being.

**Method:**
- Technical research and trials of potential recipe, ingredient and flavour ideas
- Investigation of current market products
- Conducting surveys
- Reformulating existing bulk muffin mix
- Trialling different muffin mixes
- Sensory testing and shelf life trials
- Final production of product
- Finalisation of packaging and labeling

**Problems Encountered:**
- Calculating the original Sherratt bulk mix and correct amounts of ingredients to add
- Deciding on appropriate flavouring combinations for our target market
- Calculating new formulation mixes
- Class time and equipment constraints for producing muffin mix, preparing and baking of muffins

**Final Outcome:**
Our muffin is an extension to Sherratt Ingredient’s pre-existing bulk muffin mix that contains a high vegetable fibre and low fat content. It is suitable for consuming before or after exercising to boost and sustain energy levels. The base mix is made by doubling the fibre, half and half, potato fibre and pea fibre.