

June 2023

Estimating the cost of a healthy diet: testing an approach based on nutritionally analysed meal plans

1. Overview of the report

This project acts as an exploratory piece to provide an estimation of the cost of a healthy balanced diet from a supermarket, as per the [UK Government's dietary recommendations](#). It was based on the Food Standards Scotland's (FSS) [Eatwell Everyday](#) resource, which provides example shopping lists and meal plans for achieving a healthy diet over the course of a week. This project also developed a vegetarian version of the Eatwell Everyday shopping list and meal plan, to assess the differences in cost between this and the original.

The results demonstrated a wide range of prices for items within the healthy basket, suggesting that making use of budget and lower cost options are a successful way to cut the cost of a weekly shop.

The vegetarian meal plan used a slightly different methodology to the original to calculate food and drink quantities for two and four person households. This may have marginally influenced the final menu costs and nutritional analyses thereby affecting comparison between the meal plans. As a result, this project has been designed as a proof of concept piece, outlining a possible methodology for assessing the cost of a healthy shopping basket. Further refinements and adaptations would be required, with learnings from this initial project feeding into the process, should this work be repeated. It should also be noted that this project does not provide an 'absolute' cost of a healthy diet, due to challenges of estimating costs associated with travel, fuel and time, for example.

The data collection and initial write up of results was completed by Clodagh Elrick, a fourth year 'Food, Nutrition and Human Health' student from Robert Gordon University, during her placement with Food Standards Scotland.

2. Background

Price and people's ability to afford food are major determinants of the food people choose to purchase from shops and supermarkets, particularly for those on low incomes. Cost is often cited as a barrier to healthy eating within FSS' [consumer tracker surveys](#). In recent times, food prices have risen substantially, driven by both domestic and global factors, and as a

result the cost of people's weekly food shop has been reportedly [increasing](#). This has likely to have contributed to changes in [shopping habits](#). Furthermore, [evidence](#) shows that healthier foods can be up to three times more expensive than less healthy foods, which make it even more challenging to purchase and consume a healthy diet.

Previous studies have estimated the cost of achieving a healthy diet using a variety of methodologies. This includes the [Food Foundation](#) who have tracked the cost of a weekly shopping basket for males and females, based on what they would typically eat as part of a reasonably costed, adequately nutritious diet. This research found, as of April 2023, due to the rise in inflation, the price of a basket for a woman increased by 26.7% compared to April 2022. Similarly, the men's basket increased by 25.5% over the same timeframe¹. A study by [Scarborough et al](#) (2016) modelled food group consumption and price of diet if the recommendations in the [Eatwell Guide](#) were achieved. Results found a cost of £5.99 per adult per day, or £41.93 per week. Further research by [Food Standards Agency Northern Ireland](#) calculated the cost of a minimum essential food basket for four household types with low incomes in 2020. It found a cost of £122.00 a week for two-parent, two-children families (pre-school and primary school), £162.00 for two-parent, two-children families (primary and secondary school), £105.00 for one parent two children families and £61.00 for a pensioner living alone. [The Living Costs and Food Survey](#) (April 21 to March 22) reported average weekly spend on food and non-alcoholic drinks was £62.20, where the average number per household was 2.4 individuals.

Due to the increasing impact of the cost of living crisis, FSS explored the estimated cost of a healthy shopping basket using the example meal plan and shopping list (menu A) available within the [Eatwell Everyday](#) (EWED) resource. EWED was designed to help couples and families meet dietary recommendations over the course of a week, and is based on the [Eatwell Guide](#). This analysis aims to provide an estimated cost of a healthy weekly shopping basket for both couples and families.

As demonstrated by the [Carbon Trust](#), moving towards the Eatwell Guide would be a more sustainable way of eating and would result in a 32% lower environmental footprint compared to our current diet in the UK. Whilst the Eatwell Guide illustrates that animal based products, such as meat and dairy can be included as part of a healthy balanced diet, these should be consumed in much smaller proportions than that of plant based foods. Currently, EWED provides no suitable alternative for vegetarians, therefore this project sought to develop a vegetarian meal plan and to compare the cost against the original EWED meal plan.

3. Aims

- To determine the cost of a healthy shopping basket using the example meal plan and shopping list within the EWED resource.
- To create, nutritionally analyse and cost a vegetarian version of the EWED meal plan and shopping list.

¹ Note per Tesco supermarket costs and Clubcard prices

4. Methods

The below provides an overview of the methodology used to determine the cost of a healthy shopping basket and for the creation of a vegetarian meal plan and shopping list. A more detailed breakdown of the methodology can be found in the Annexe alongside the full vegetarian meal plan and shopping list (Annexe 1 and 2).

4.1 Cost of a healthy shopping basket

Products and associated costs were collected online using the [Tesco website](#), as Tesco accounted for the greatest share of grocery spend in Scotland [in 2021](#). Each item from the menu A shopping list within EWED for both couples and families was located and a range of costs for each of the required products were recorded.

The findings are a snapshot in time, with costs collected between September and November 2022. The exact cost of the meal plan, in addition to the upfront cost of the shopping basket were calculated for the week. The exact cost is the price of the total amount of product required by the shopping list, whilst the basket cost is the realistic upfront cost that covers the quantity required by the shopping list, but due to availability of pack sizes, may include buying products in excess of requirements. The meal plan required small quantities of, for example, flour, sugar, herbs and condiments. These were not included within the estimated costs as these items are usually purchased sporadically.

4.2 Creating a vegetarian meal plan and shopping list

The original meal plan was adapted to remove products that were not suitable for vegetarians. Where possible, small ingredient swaps were made to adapt the existing EWED meal plan, with consideration given to the nutritional impact of swaps. In some instances, new meals were created to replace those from the existing plan. As noted above, the vegetarian meal plan used a slightly different methodology to the original meal plan, with regards to calculating food and drink quantities for two and four person households. Therefore, these results are not directly comparable.

The original and vegetarian meals plans were input into the dietary analysis software [Nutritics](#) to ensure they met dietary recommendations.

5. Results

5.1 Cost of a healthy shopping basket

As shown in table 1, the lowest price total for the exact cost of the original meal plan for couples was £41.33 and the highest price was £107.94 per week. For the basket cost, the lowest price total was £67.56 and the highest price was £166.11 per week.

The difference in costs between the highest price and lowest price for the exact cost was £66.61 (161% difference), and for the basket cost was £98.55 (146% difference).

Table 1: Original meal plan - Couples lowest and highest total price per week

	Lowest price total	Highest price total	Difference	Percentage difference
Total exact cost	£41.33	£107.94	£66.61	161%
Total basket cost	£67.56	£166.11	£98.55	146%

As shown in table 2, the lowest price total for the exact cost of the original meal plan for families was £76.91 and the highest price was £197.48 per week. For the basket cost the lowest price total was £90.65 and the highest price was £239.63 per week.

The difference in costs between the highest price and lowest price for the exact cost was £120.57 (157% difference), and for the basket cost was £148.98 (164% difference).

Table 2: Original meal plan - Families lowest and highest total price per week

	Lowest price total	Highest price total	Difference	Percentage difference
Total exact cost	£76.91	£197.48	£120.57	157%
Total basket cost	£90.65	£239.63	£148.98	164%

5.2 Creating a vegetarian meal plan and shopping list

Table 7 in Annexe 2 provides full details of the changes that were made to the original meal plan to make it suitable for vegetarians.

5.2.1 Nutritional analysis

As with the original meal plan within EWED, the vegetarian meal plan largely met dietary recommendations. The vegetarian meal plan was slightly over the required percentage energy for carbohydrates. Overall, both the original and vegetarian meal plans are nutritionally similar with regards to energy, protein, fat, saturated fat, carbohydrates and free sugar content, per table 3.

Table 3: Nutrients as percentage of daily energy intake for both the original and vegetarian meal plans compared to dietary recommendations.

	Average energy (kcal)	Protein (% energy*)	Fat (% energy)	Saturated fat (% energy)	Carbohydrate (% energy)	Free sugars (% energy)
Original	1,995	16.1%	31.9%	8.0%	49.0%	5.2%
Vegetarian	1,948	15.1%	29.9%	8.2%	51.9%	4.8%
Dietary recommendation**	2,000	15%***	≤35%	≤11%	50%	≤5%

*percentage energy, for the purposes of this report excludes alcohol

** note based on individual adult female requirements (age 19 to 64)

***note this is usually based on body weight, but for the purposes of this analysis we used 15% based on the totals for carbohydrate and fats

Table 4 provides the micronutrient analysis of the original meal plan and the vegetarian meal plan. On a micronutrient level, both the original and vegetarian meal plans meet all the micronutrient dietary recommendations with the exception of selenium. The original was also slightly low in iron.

Table 4: Average daily micronutrient intake from both meal plans compared to dietary recommendations.

	Original (% of recommendations)	Vegetarian (% of recommendations)	Dietary recommendations**
Fibre* (g)	34.4 (115%)	37.7 (126%)	30
Vitamin A (retinol equivalent) (ug)	1574.3 (262%)	1250.3 (208%)	600
Thiamin (B1) (mg)	2.6 (325%)	2.6 (325%)	0.8
Riboflavin (B2) (mg)	1.8 (164%)	1.8 (164%)	1.1
Niacin (B3) (mg)	43 (326%)	35.6 (270%)	13.2
Vitamin C (mg)	203.1 (508%)	210.3 (526%)	40
Vitamin B 12 (ug)	4.7 (313%)	3.7 (247%)	1.5
Folates (B9) (ug)	386.3 (193%)	428.1 (214%)	200
Salt (mg)	5013.2 (83%)	5141 (87%)	<6000
Potassium (mg)	4425.4 (126%)	4190.6 (120%)	3500
Calcium (mg)	886.6 (127%)	1156.3 (165%)	700
Magnesium (mg)	415.7 (154%)	452.9 (168%)	270
Phosphorus (mg)	1460.3 (266%)	1536.4 (279%)	550
Iron (mg)	14.4 (97%)	16.1 (109%)	14.8
Zinc (mg)	9.3 (133%)	9.6 (137%)	7
Selenium (ug)	51 (85%)	50.4 (84%)	60

* note fibre defined as [AOAC](#) fibre

**based on individual adult female dietary recommendations (age 19 to 64)

5.2.2 Vegetarian meal plan costs

With regards to costs, the vegetarian meal plan was analysed in the same way to the original, and the results are shown below in tables 5 and 6.

As shown in table 5, the lowest price total for the exact cost of the vegetarian meal plan for couples was £36.74 and the highest price was £99.52 per week. For the basket cost the lowest price total was £60.46 and the highest price was £151.17 per week.

The difference in costs between the highest price and lowest price for the exact cost was £62.78 (171% difference), and for the basket cost was £90.71 (150% difference).

Table 5: Vegetarian meal plan - Couples lowest and highest total price per week

	Lowest price total	Highest price total	Difference	Percentage difference
Total exact cost	£36.74	£99.52	£62.78	171%
Total basket cost	£60.46	£151.17	£90.71	150%

As shown in table 6, the lowest price total for the exact cost of the vegetarian meal plan for families was £73.61 and the highest price was £201.72 per week. For the basket cost the lowest price total was £88.92 and the highest price was £233.11 per week.

The difference in costs between the highest price and lowest price for the exact cost was £128.11 (174% difference), and for the basket cost was £144.19 (162% difference).

Table 6: Vegetarian meal plan - Families lowest and highest total price

	Lowest price total	Highest price total	Difference	Percentage difference
Total exact cost	£73.61	£201.72	£128.11	174%
Total basket cost	£88.92	£233.11	£144.19	162%

6. Discussion

6.1 Cost of a healthy shopping basket

The results in tables 1 and 2 highlight the huge range of differences in possible costs for a healthy basket, for both couples and families. The percentage differences between the lowest and the highest cost range from 146% to 164% demonstrating that making use of budget and lower cost options are a successful way to cut the cost of a weekly shop, as shoppers could be spending over double for a healthy weekly shop by choosing more expensive items.

FSS analysis of data from Kantar (currently unpublished) found that the average household in Scotland spent £79.87 per week on food and drink groceries in 2022 (including alcohol). This figure relates to the average household and therefore includes a mixture of household types and sizes, however it aligns with the range of costs found within this analysis.

The estimated costs from this project were based on those from Tesco, however FSS [research](#) indicates that large proportions of the population shop in other supermarkets including other smaller convenience retailers, and therefore these costs may not necessarily be the cheapest.

6.2 Creating a vegetarian meal plan and shopping list

Overall the vegetarian meal plan created for EWED was nutritionally very similar to the original, and both were able to meet the dietary recommendations for both macro and micronutrient, with the exception of selenium. Meals that previously contained meat were often based around beans and pulses, but to ensure variety, the same swaps were not continually repeated (i.e. always using lentils in place of mince). Nuts were included more in the vegetarian menu as snacks and as part of meals. However, nuts and seeds can be high price items and some consumers may have nut allergies.

Where it would be difficult to simply exchange a meat product for a vegetarian alternative product, entirely new meals were created on some occasions which also helped to increase variety. Additionally, some meat alternative products can be high in fat, saturated fat and salt. However, as meat alternatives may be [more acceptable](#) than beans and pulses, and could make the transition towards a more plant based diet easier, items like soya mince were used on occasion within the vegetarian menu.

Although the methodology used to calculate food and drink quantities for two and four person households was slightly different between the two meal plans, the vegetarian basket was found to be of a similar cost to the original EWED basket for both couples and families. This is a positive finding as shoppers are being encouraged to move to a more sustainable plant-based diet and there is limited evidence reflecting the effect these changes would have on food purchasing costs. Diets that concentrate on wholegrains and legumes are reported to be cheaper than diets focused on [vegetables and animal-based products](#). However, the reduction in meat within the vegetarian menu also led to an increased reliance on dairy products which may be at odds with [climate change advice](#). Non-dairy alternatives could have been used, but weren't explored.

6.2.1 Limitations

The products on the Tesco website varied in cost and availability day by day making it difficult to predict accurate costs, and the online costs may not accurately represent those found in stores. Additionally, the EWED meal plan doesn't consider seasonality which will affect availability and cost (e.g. strawberries).

Although the impact of promotions on cost was an area of interest (including the use of Tesco Clubcard), it was not possible to assess this due to the variety and complexity of calculating this. For example, the meal plan required two tins of soup, but a promotion only applied when four were bought. Additionally specific product promotions are changeable, with offers sometimes lasting a couple of weeks.

The cost of a food product itself is just one consideration as consumers navigate a number of competing priorities which influence food choice, such as time, cooking skills and personal preferences. For those who are struggling with income or living in challenging situations, the cost of fuel for preparing and cooking meals, availability of cooking equipment and lack of adequate fridge/freezer and cupboard space can also make choosing healthier foods more difficult.

The nutritional analysis conducted wasn't sufficiently detailed to differentiate between the nutritional composition of budget options compared to more expensive products.

If this was to be repeated, further refinements could be done to take into consideration age and sex of individual household make-ups.

7. Conclusion

This report explored the feasibility of assessing the cost of a healthy shopping basket and the creation of a vegetarian meal plan based on the FSS EWED resource. Overall, despite the limitations highlighted, this project achieved its aims and the analysis highlights a number of challenges facing shoppers.

The results demonstrated a wide range of costs available for items within the healthy basket, suggesting that making use of budget and lower cost options are a successful way to cut the cost of a weekly shop.

It also found that it was feasible to adapt the original EWED meal plan to provide a vegetarian alternative, and this adapted plan was nutritionally sufficient.

This project acts a basis for potential future analysis in this area.

8. Annexes

9. Annexe 1: Methodology for cost of a healthy shopping basket

9.1 Categorising products

Products and costs were collected online using the [Tesco website](#), as Tesco accounted for the greatest share of grocery spend in Scotland [in 2021](#). Each item from the menu A weekly shopping lists for both couples and families was located and the cheapest and most expensive costs for each of the required products were recorded.

For each item, the range of available costs were compiled for a week. By comparing each option for every product, a list of the lowest priced options based on both exact cost and basket cost was created. The 'lowest price total' is the sum of these to represent both the total lowest exact cost and total lowest basket cost. This was repeated for the highest costs.

Additionally the availability of loose, frozen or tinned products was also noted to provide a range of options to reflect the variety of choices and costs available to shoppers.

Items were further categorised according to the Eatwell Guide into the following food categories:

- 1: Fruit and vegetables
- 2: Starchy carbohydrates (e.g. bread, pasta, rice)
- 3: Protein (e.g. beans, pulses, fish, eggs, meat and other proteins)
- 4: Dairy and alternatives

The meal plan also required small quantities of additional store cupboard ingredients such as flour and vegetable oil.

9.2 Exact cost vs. basket cost

The findings provided a snapshot in time of the costs associated with the shopping list, with costs collected between September and November 2022. The exact cost of the meal plan, in addition to the upfront cost of the shopping basket were calculated.

The exact cost was calculated as the price of the total amount of product required by the shopping list. The EWED shopping list had a combination of weights and handy measures so the exact cost was based on weight (e.g. 60g oats) or the number in a pack (e.g. 10 bananas).

The basket cost is the realistic upfront cost that covers the quantity required by the shopping list, but due to availability of pack sizes, may include buying products in excess of requirements.

9.3 Determining exact cost

Some fresh produce was available to shoppers loose, making it simpler to buy the exact amount required by the shopping list. The exact cost was calculated by multiplying the cost for one item by the quantity required.

When purchasing some fruit and vegetables it was not always clear how many individual items were included in a pack, which made it difficult to calculate the cost. For example, the shopping list for couples required three peppers, however some peppers were sold bagged, which only provided the total weight, not the number of peppers within a pack. In this scenario, in order to calculate the exact cost of the amount required by the shopping list (e.g. three peppers), it was necessary to estimate costs based on average product weights as published within the Food Standards Agency 'Food Portion Sizes' book², and where not available, the weight for one pepper given on the Tesco website was used.

9.4 Determining basket cost

The basket cost indicates the upfront cost of an item where the precise quantity could not always be purchased due to only large pack sizes being available. The number of packs required depended on the pack size available, and for some products multiple packs had to be purchased to meet the shopping list requirements. This was multiplied by the cost of the pack to determine the basket cost.

An example

The menu for couples required 330g pasta but could only be bought as a 500g bag. The basket cost of the value option was £0.32, but the exact cost would be £0.21 for 330g.

10. Annexe 2: Methodology for creating a vegetarian meal plan and shopping list

10.1 Adapting the original meal plan

The meals, snacks and ingredients in the EWED meal plan (menu A) for both couples and families were input into the dietary analysis software [Nutritics](#). This original meal plan was then adapted to remove products that were not suitable for vegetarians.

This included:

- Meat: beef, pork, chicken
- Fish: tuna, salmon, haddock
- Foods containing products derived from animals, e.g. jelly (pork gelatine) and parmesan (calf rennet)

² Food Portion Sizes, Food Standards Agency (3rd edition) (2006)

Where possible, small ingredient swaps were made to adapt the existing EWED meal plan, with consideration given to the nutritional impact of swaps. In some instances, new meals were created to replace those from the existing plan; for example where there was no straightforward ingredient swap, or to improve variety within the vegetarian meal plan. New meals were adapted from recipes published on the [Vegetarian Society website](#). An example of this was replacing a roast chicken dinner with black bean quesadillas.

Out of the seven days, only two entirely new meals were created, with all others undergoing small adaptations.

10.2 Nutritional analysis

The nutritional information for the original EWED meal plans for both couples and families for menu A was added to Nutritics. Once input was finished, the meal plan was duplicated and the required edits were made to create the vegetarian version to allow comparison. Both meal plans were designed to meet the [UK Government's Dietary Recommendations](#). Please refer to section 9.4 for the additional vegetarian recipes.

Once the final vegetarian meal plan was nutritionally analysed, a shopping list containing all the items required was created (see section 9.5). A costing exercise was carried out using the Tesco website to estimate the total price of the shopping list.

The Tesco website, in line with the method for costing a healthy shopping basket, was used to cost all possible vegetarian swaps and the meat/fish equivalents to identify how budget friendly an alternative vegetarian shopping list would be.

10.3 Changes made to original meal plan to create vegetarian version

The below table (table 7) demonstrates the changes that were made to the original meal plan (orange) to make it suitable for vegetarians (green) for each of the seven days. This includes changes to full meals, or smaller changes to elements of a meal/snack. Note that the boxes left white are those where no changes were made. The original meal plan and ingredients can be found [here](#).

Table 7: Changes to the original 7-day meal plan (orange) to create vegetarian options (green)

	Breakfast	Lunch	Dinner	Additional foods/drinks
Monday	Scrambled egg, slice of wholemeal toast and lower fat spread, and a glass of fresh orange juice	Baked potato with tuna sweetcorn mayonnaise	Beef cottage pie with vegetables, followed by a banana	Apple, orange, raisins and slice of toast with lower fat spread
		Baked potato with baked beans and cheese	Lentil cottage pie with vegetables,	Tea and coffee with milk

			followed by a banana	
Tuesday	Bowl of wheat bisks with milk, slice of wholemeal toast and marmalade, and a glass of fresh orange juice	Cheese and salad sandwich on wholemeal bread followed by yogurt and dried fruit <i>additional amounts of cheese (20g to 30g) and sultanas (36g to 50g) added for vegetarian menu</i>	Bowl of tinned lentil soup, and salmon with potatoes and vegetables Bowl of tinned lentil soup, and sweet chilli tofu with potatoes and vegetables	Grapes, slice of toast with lower fat spread Tea and coffee with milk <i>additional amount of grapes (100g to 150g) added for vegetarian menu</i>
Wednesday	Bowl of wholegrain breakfast flakes with milk, slice of wholemeal toast and jam, and glass of fresh orange juice	Baked beans, slice of wholemeal toast, with low fat spread and grated cheddar cheese	Beef curry with brown rice, raita, naan bread and poppadoms, followed by a fruit salad Chickpea curry with brown rice, raita, naan bread and poppadoms, followed by a fruit salad	Orange, banana, slice of toast with lower fat spread Tea and coffee with milk
Thursday	Bowl of wheat bisks with milk, slice of wholemeal toast with spread and marmalade, and a glass of fresh orange juice	Bowl of tinned tomato soup and a bread roll with lower fat spread	Beef mince spaghetti bolognese with garlic bread, a side salad, followed by fruit salad Soya mince spaghetti bolognese with garlic bread, a side salad, followed by fruit salad	Mixed nuts, raisins, and grapes, slice of toast with lower fat spread Tea and coffee with milk
Friday	Bowl of wholegrain breakfast flakes with milk, slice of wholemeal toast and jam, and glass of fresh orange juice	Pitta bread with hummus and a side salad <i>additional amount of hummus (60g to 74g) added for vegetarian menu</i>	Oven baked haddock with oven chips and vegetables Vegetable egg fried rice followed by a fruit yogurt	Grapes, slice of toast with lower fat spread Tea and coffee with milk <i>additional amount of grapes (100g to</i>

				150g) added for vegetarian menu
Saturday	Bacon roll with spread and tomato ketchup, and a glass of fresh orange juice	Homemade chicken and vegetable soup, a bread roll with lower fat spread, and a jelly pot	Pasta ratatouille bake with oatcakes and cheese	Apple, banana and a slice of toast with lower fat spread Tea and coffee with milk
	Peanut butter and banana on toast, and a glass of fresh orange juice	Homemade pea and spinach soup, a bread roll with lower fat spread, followed by a yoghurt and nuts	Pasta ratatouille bake with oatcakes and cheese, followed by dried fruit	Apple and a slice of toast with lower fat spread Tea and coffee with milk
Sunday	Bowl of porridge, slice of wholemeal toast and lower fat spread, and a glass of fresh orange juice	Egg and cress mayonnaise baguette, fruit yogurt and skinny cappuccino	Roast chicken with potatoes and vegetables, followed by homemade apple crumble and a pot of plain yogurt	A slice of toast with lower fat spread, banana and low fat crisps Tea and coffee with milk
			Black bean quesadillas, followed by homemade apple crumble and a pot of plain yogurt	A slice of toast with lower fat spread Tea and coffee with milk

10.4 Additional vegetarian recipes

Pea and spinach soup- edited from [Vegetarian Society](#):

Serves 4

- 1 onion, chopped
- 1 tbsp olive oil
- 3 cloves garlic, finely minced
- 1 small potato, peeled and chopped
- 1,250ml vegetable stock
- 100g frozen peas
- 150g frozen spinach
- A pinch salt and pepper

1. Add the oil to a large saucepan on medium heat and cook the onion until translucent. Combine the potato and garlic and cook for a further 5 minutes.

2. Pour the vegetable stock in and simmer on a low heat- test if the potatoes are ready after 15 minutes. Add the remaining ingredients and allow 5 minutes for the peas and spinach to cook.
3. Take the saucepan off the heat and allow a couple minutes to cool before blending. If necessary add salt and pepper to taste.

Egg fried rice- edited from [Vegetarian Society](#):

Serves 2

- 1 tbsp olive oil
 - 1 medium onion, chopped
 - 1 clove of garlic, crushed
 - 1 red pepper
 - 360g cooked brown rice
 - 100g frozen peas
 - 2 eggs
 - 1 tbsp soy sauce
1. If required, begin cooking the brown rice according to packet instructions.
 2. Put a large frying pan over medium heat and add in the olive oil. Initially add the onion and after a few moments, the red pepper. Allow to cook for a couple minutes before combining the crushed garlic.
 3. Crack the eggs into a small bowl and whisk well.
 4. Push the vegetables to one side of the pan, and add the eggs to the other side. Gently stir until the egg has begun to solidify before mixing together the contents of the pan and again moving to one side. Add the cashews, and stir every so often until lightly golden, and incorporate everything together.
 5. Add the frozen peas and rice, and when all ingredients are fully cooked take the pan off the heat and pour in the soy sauce.

Black bean quesadillas:

Serves 3

- 1 tbsp olive oil
- 1 medium onion, chopped
- 1 medium pepper, chopped
- 80g (1/2 can) of sweetcorn
- 2 cloves garlic, finely minced
- 1 tsp ground paprika
- 1 tsp ground cumin
- 1 tbsp tomato puree
- 150g passata
- 1 can black beans
- 3 tortilla wraps
- 120g cheddar cheese

1. Placing a large frying pan over medium heat, cook the onion for a few moments before adding the pepper and sweetcorn.
2. Once the sweetcorn has begun to lightly toast, add the spices and cook until fragrant. Add the tomato puree and passata, allowing some of the moisture to evaporate before combining the drained black beans.
3. Preheat a large frying pan and grate the cheese if required. Fill each wrap with a couple of spoonful's of mixture (take care not to overfill) and sprinkle with cheese. Fold in half, and toast either side in the pan. Cut the quesadilla in half and serve.

10.5 Vegetarian shopping lists

10.5.1 Couples

Fruit and vegetables

- 6 apples (2 for crumble recipe)
- 4 oranges
- 8 bananas
- 800g grapes
- Fruit salad- 2 bananas, 2 apples, 2 oranges, 4 strawberries, 40g grapes, 2 kiwis
- 2L orange juice
- 6 (480g) carrots
- 160 cauliflower
- 7 onions
- Bulb of garlic
- 180g lettuce
- 90g (6) cherry tomatoes
- 5 (425g) medium tomatoes
- 1 cucumber
- 5 peppers
- 120g green beans
- 100g mushrooms
- 3 courgette
- 2 spring onions
- 210g frozen peas
- 150g broad beans
- 75g baby spinach

Potatoes, bread, rice, pasta and other starchy carbohydrates

- 2 baking potatoes
- 450g potatoes
- 4 poppadoms
- 2 mini naans
- 2 pittas
- 2 tortillas
- 2 large loaves of plain bread
- 6 bread rolls
- 104g (4 slices) garlic bread
- 280g plain cereal
- 6 oatcakes
- 60g rolled oats
- 720g brown rice
- 340g pasta

Dairy and alternatives

- 2.8L semi-skimmed milk
- 200g cheddar
- 9 (1125g) low fat plain yogurts
- 2 (250) fat free fruit yogurts

Beans, pulses, eggs and other proteins

- 8 eggs
- 2 cans baked beans
- 1 can chickpeas
- 1 can black beans
- 200g lentils (cooked)
- ½ (232g) block of firm tofu
- 150g soya mince

Additional store cupboard items

- 260g raisins
 - 50g nuts and raisins
 - 50g cashew nuts
 - 1 can lentil soup
 - 1 can cream of tomato soup
 - 1 can of tomatoes
 - 150g of passata
 - 150g hummus
 - ½ can sweetcorn
 - 325g low fat spread
-
- Vegetable stock cube
 - Soy sauce
 - Tomato puree
 - Sweet chilli sauce
 - Olive oil
 - Tea and coffee
 - Marmalade
 - Jam
 - Peanut butter
-
- Salt and pepper
 - Mixed herbs- oregano and basil
 - Dried spices- curry powder, paprika, cumin,
 - Mango chutney
 - Mint sauce
 - Sugar
 - Flour

10.5.2 Families

Fruit and vegetables

- 12 apples (4 for crumble recipe)
- 8 oranges
- 16 bananas
- 1600g grapes
- Fruit salad- 4 bananas, 4 apples, 4 oranges, 8 strawberries, 80g grapes, 4 kiwis
- 5L orange juice
- 12 (960g) carrots
- 320 cauliflower
- 13 onions
- 2 bulbs of garlic
- 360g lettuce
- 180g (12) cherry tomatoes
- 10 (850g) medium tomatoes
- 2 cucumber
- 10 peppers
- 240g green beans
- 200g mushrooms
- 6 courgettes
- 4 spring onions
- 310g frozen peas
- 300g broad beans
- 75g baby spinach

Potatoes, bread, rice, pasta and other starchy carbohydrates

- 4 baking potatoes
- 702g potatoes
- 8 poppadoms
- 4 mini naans
- 4 pittas
- 4 tortillas
- 4 large loaves of plain bread
- 12 bread rolls
- 208g (8 slices) garlic bread
- 560g plain cereal
- 12 oatcakes
- 120g rolled oats
- 1440g brown rice
- 680g pasta

Dairy and alternatives

- 5.6L semi-skimmed milk
- 400g cheddar
- 18 (2250g) low fat plain yogurts
- 4 (500g) fat free fruit yogurts

Beans, pulses, eggs and other proteins

- 16 eggs
- 4 cans baked beans
- 2 can chickpeas
- 2 can black beans
- 400g lentils (cooked)
- 1 (464g) block of firm tofu
- 300g soya mince

Additional store cupboard items

- 520g raisins
 - 100g nuts and raisins
 - 100g cashew nuts
 - 4 cans lentil soup
 - 4 cans cream of tomato soup
 - 2 can of tomatoes
 - 300g of passata
 - 300g hummus
 - 1 can sweetcorn
 - 650g low fat spread
-
- Vegetable stock cube
 - Soy sauce
 - Tomato puree
 - Sweet chilli sauce
 - Olive oil
 - Tea and coffee
 - Marmalade
 - Jam
 - Peanut butter
- Salt and pepper
 - Mixed herbs- oregano and basil
 - Dried spices- curry powder, paprika, cumin,
 - Mango chutney
 - Mint sauce
 - Sugar
 - Flour

10.6 Considerations

- Garlic and cauliflower- weight not found on Tesco website or within Portion book so used weight given by- [How Much Does A Garlic Clove Weigh? Everything You Need to Know. - Tastylicious](#) and [How Much Does A Head Of Cauliflower Weigh? - What Things Weigh](#)
- Dried fruit was based on sultanas
- Unsweetened fruit juice was based on smooth orange juice
- “Side vegetables” were based on bag of mixed vegetables
- Sweetcorn was based on tinned (except when frozen)
- Potatoes were all based on baby potatoes
- “Low sugar and salt plain cereal” was all based on wheat biscuits