

NRICH MATHS CHALLENGE
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Which Food?:	1. Emissions per portion (gCO ² e)	1. Emissions per portion ranking (ascending order)	2. Estimate of emissions per calorie number (gCO ² e per calorie)	2. Estimate of emissions per calorie ranking (ascending order)	3. Actual number of emissions per calorie (gCO ² e per calorie)	3. Actual emissions per calorie ranking	4. Estimate of litres of water per gram of protein (l per g)	4. Estimate of litres of water per gram of protein ranking (ascending order)	4. Actual number of litres of water per gram of protein (l per g)	4. Actual litres of water per gram of protein ranking (ascending order)
Steak	4,723	9th	19	8th	19.50	8th	22	6th	22.2	6th
Quorn	379	5th	2	5th	1.90	5th	less than 20	5th	15.3	5th
Eggs	470	7th	3-4	7th	3.20	7th	9	1st	9.9	1st
Baked beans	430	6th	more than 2.5	6th	2.60	6th	11.5	2nd	11.5	2nd
Lentils	151	4th	0.8	3rd	0.85	3rd	15	4th	14.9	4th
Almonds	63	1st	0.3	1st	0.34	1st	less than 50	9th	49.1	9th
Milk	550	8th	5	5th	5.00	5th	11.6	3rd	12.8	3rd
Oat milk	110	3rd	0.75	2nd	0.74	2nd	less than 40	8th	37.0	8th
Porridge	101	2nd	0.9	4th	0.91	4th	35	7th	35.3	7th

Other measures that could be used to order the foods:

- a) Fibre per gram of food
- b) Litres of water per calorie
- c) Protein per gram of food

Best Food:

Based on the initial review of emissions, I thought the best food was almonds and this was closely followed by lentils, oat milk and porridge. I then considered other measures such as water per gram of protein and the best item was eggs, followed by baked beans, milk and lentils. Surprisingly, almonds that came first based on emissions, now ranked at the bottom for water per gram of protein. I therefore concluded that the best food item was **lentils**, as this was the only one that appeared within the top four of all three measures calculated in my spreadsheet.