STEM challenge

The Great British Space Dinner

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Goals

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Breakfast



For breakfast there will be a food bar which can act as a replacement for a meal. It can have up to 900 calories and is almost the same as a bowel of muesli. It contains lots of nutrients and can fit well into an airtight bag. It will be vacuumed to get out access air and it will last longer in space. It will be very appealing and I would ensure there was different flavours so it would not get boring. Ideally there would be a different flavour for everyday of the week. Before the launch, I would ask for each passenger to find their favourite flavour. This is good as it is not messy.



To give the astronauts a fruity blast after the food bar I would also prepare air tight bags filled with an arrangement of freeze dried fruit. There would be strawberries, raspberries, blackberries and more! These are very nutritious and tasty and the passengers would enjoy having them as an addition to their breakfast. This is good as it can be easily kept in an air tight bag.

The total of this whole meal is 1785.5 kj, 423 kcal, 1.2g saturates, 0.7g monounsaturates, 0.1g polunsaturates, 72.8g carbs, 33.4g sugars, 13.2g protein and 7.8g fibre. They would have had 3/4 of their five a day.



water, juice, tea or coffee. This would help them enjoy their meals more. They would have to be dehydrated and the in space they would have to be dehydrated. (I couldn't find a picture of dehydrated juice). They could have a choice between orange juice, tropical juice, apple juice, grapefruit juice and more. They would have to tell the chef how many sugars they wanted in their coffee and tea etc as it would need to be prepared in advance and dehydrated.

Lunch



For lunch I am intending on doing a roast dinner with the choice of chicken or quorn. It will include carrots, peas, yorkshire pudding, meat, gravy and potatoes. They would have this meal every Sunday lunch as it is very British and will remind them of home. They will all be in a special plastic bag which can be prepared in advance and vacuumed and then heated up in the on board microwave. The good thing about being able to vacuum foods is that the vegetables and meat will last much longer without going off in space. A classic roast dinner is a tasty, fun meal and I can ensure that all the passengers would enjoy the meal. Their meal would also come with water so they stay $hydrated\ and\ they\ would\ most\ likely\ want\ to\ drink\ some\ fluids\ after\ having\ a\ large$ lunch. This is a good meal to have together as it is very tasty and easy to eat and they will all have a separate bag of food. This is a very healthy and nutritious meal as it comes with carbs, vegetables, protein and gravy. It would have to be prepared in advance and packed into separate air tight bags and boxes in the pantry. The total of this whole meal is 1248 kj, 297.1 kcal, 15g fat, 6.2g saturates, 4.9g of $monoun saturates, 2.6 g\ polyun saturates, 21.5 g\ carbs, 7.9 g\ sugars, 20.5 g\ protein\ and$ 4.4g fibre.

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Dessert



The honey cake is a tasty British sponge. It is often eaten in space as a sweet treat and goes well with custard or on its own. It is a classic sponge however there is a twist there is honey in it! It contains honey, sugar, self raising flour, sugar and eggs. It has 1321 kj, 315 kcal, 15.18g fat, 9.48g saturates, 3.81g monounsaturates, 0.62g polyunsaturates, 43.6g carbs, 23.9g sugars, 3.6g protein and 1g fibre.



To go with the classic honey cake, there would be the choice of custard to go with it. It can be easily prepared and is very tasty. This will bring some moisture to the sponge and make it lighter. It is not too sweet and will complement the honey cake very well.

The custard has 258.75 kj, 60.75 kcal, 0.23g fat, 0.12g saturates, 0.05g monounsaturates, 0.02g polyunsaturates, 12.4g carbs, 8.5g sugars and 3g of protein.

Snacks



A good sharing snack anywhere is nuts however it is even better in space as they are very self contained and tasty. They do not produce any crumbs or mess and are extremely healthy. There would be pistachios, hazelnuts, walnuts, brazil nuts and lots more. They have 1203.5 kj.



For more of a sweet tooth there will be the option of M&Ms. They are very self contained and they come in multiple flavours. There would be nut, crispy and chocolate. They would be a treat to share after an exciting mission. They contain $1003 \, \mathrm{kj}$.

Dinner









For the astronauts dinner there would be a ready made soup. There would be many flavours and would all come with a salad. A salad is a very healthy meal and it only has about 356.48 kj. It would include vegetables and dressing. Unfortunately, bread is not an option as it is extremely messy and would lead to lots of crumbs floating around the space craft. The soup would have a variety of flavours and would have to be heated in the onboard microwave. Depending on people taste buds, the passengers would have a choice of how theirs was made. This meal would also come with water and a warm drink - either coffee, tea (both would be decaff to help the astronauts sleep) or hot chocolate. They would have to drink lots of fluids to stay hydrated. Soup is a very healthy option as it only includes 2076 kj, 492 kcal, 14.1g fat, 77.3g carbs, 7.5g sugars and 18.8g protein.

Overall