



**Galo Plaza Lasso**  
**Desayuno Escolar**  
**Food & Drink Observation Report**  
**Galapagos ICE**



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**October 2011**

## **Galo Plaza Lasso**

### **Desayuno Escolar Food & Drink Observations**

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#### **Introduction**

Gala Plaza Lasso is a primary and secondary education mixed school on the island of Santa Cruz in the Galapagos Archipelago. It is situated within the town of Puerto Ayora, where the majority of inhabitants of the Galapagos reside. There are a total of 640 children that attend daily. This breaks down to 140 x 3 – 5 year olds, 340 x 6 – 11 year olds and 160 x 12 – 15 year olds. The 3 – 5 year olds and the 6 – 11 year olds attend between the hours of 7.00 am – 12.30 pm, the 12 – 15 year olds between 1.00 – 6.30 pm.



The front entrance of the school.

#### **Methodology**

With permission from the Director of the School, Cecilia Guerrero Endara, I visited Galo Plaza Lasso each day for one week between Monday 17<sup>th</sup> October to Friday 21<sup>st</sup> October 2011.

Observations were made during the children's break time which officially is 9.00 – 9.30 am for the 3 – 5 years olds, 10.00 – 10.30 am for the 6 – 11 year olds and 3.00 – 3.30 pm for the 12 – 15 year olds. However I observed for approximately 2 - 2 ½ hours from 9.00 – 11.30 am and 30 – 90 minutes from 3.00 – 4.30pm, as it appears that break time was not always fixed and so many of the children were still out in the playground during these times, and were therefore consuming food and drink.

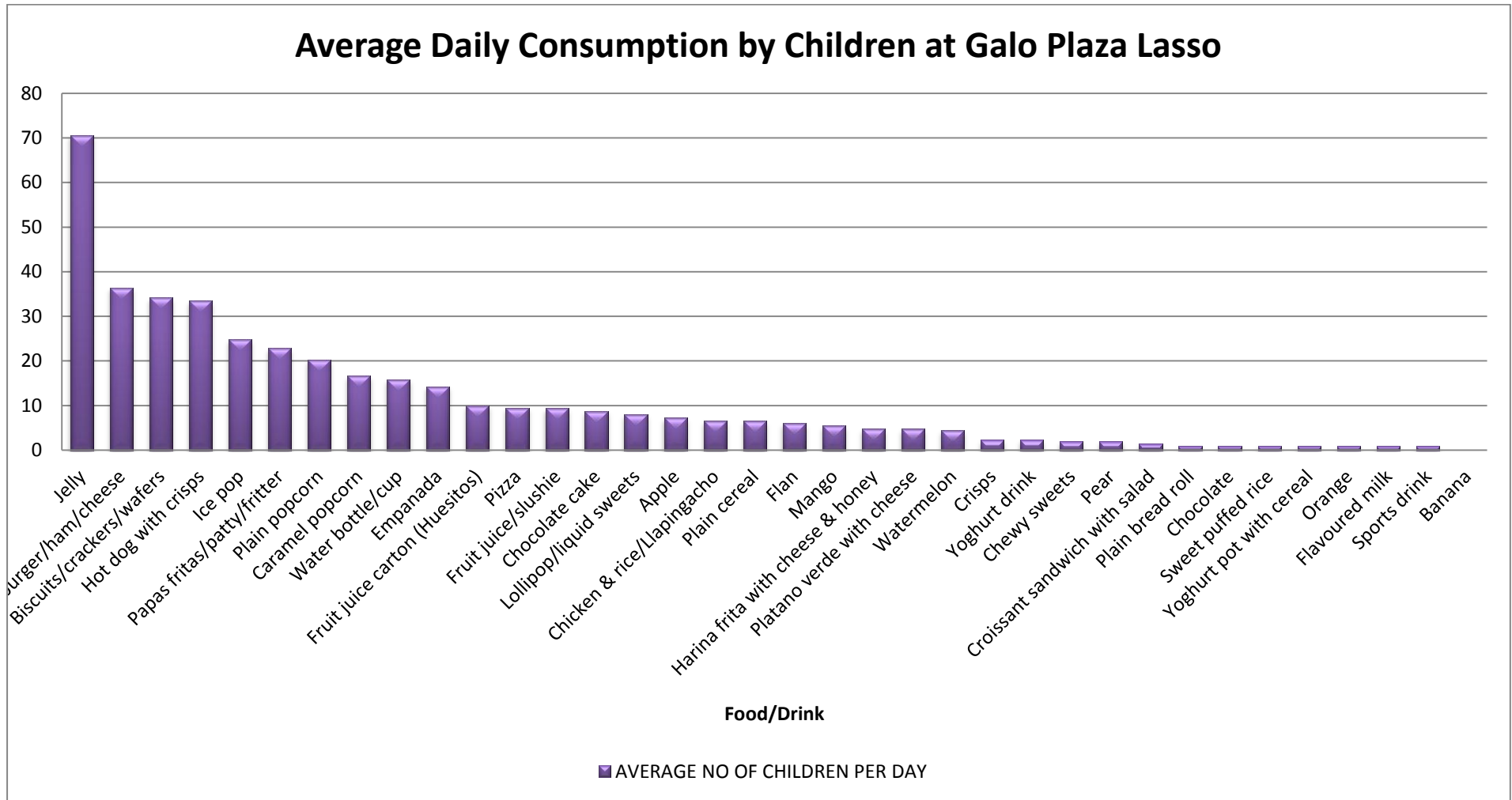
Observations of snacks consumed were recorded in a notebook and the number of children seen to be consuming them were noted as tallies.

Enquiries were also made with some children about their consumption of snacks during the break, in addition to discussions with the dinner ladies regarding provision of snacks and drinks at the bar.

I also tasted and examined a number of snacks myself, particularly if I was not entirely sure precisely what they were. I tried the following:

- *Jelly* – this was very popular and is drunk from the cup with a straw.
- *Harina fritters* with cheese and honey.
- *Papas* - which contained no added salt but plenty of mayonnaise and tomato ketchup.
- *Hot dog* – this consisted of half a Frankfurter-type sausage in a white roll with red onion and crisps on top of mayonnaise and tomato ketchup.
- *Empanada* – this was quite a large size for children and had sugar sprinkled on top in addition to being deep fried.
- *Popcorn* - this was plain with no added salt or sugar.
- *Palomitas* – this was caramelized popcorn in a small 20 g packet containing 80 kcal.
- *Huesitos* – a fruit-flavoured juice drink in a carton, which contained 180 ml, 80 kcal, 1 g fibre, 100% vitamin C, 10% calcium.

## Results



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The majority of snacks consumed appeared to be by the 6 – 11 year old age group, and this occurred largely during the 10.00 – 10.30 am time period. The majority of children purchased their food and/or drink from the School Bar. In fact at exactly when the bell rang at 10.00 am (reminiscent of a WW2 siren), there was always an immediate rush of children to the bar.



The School Bar

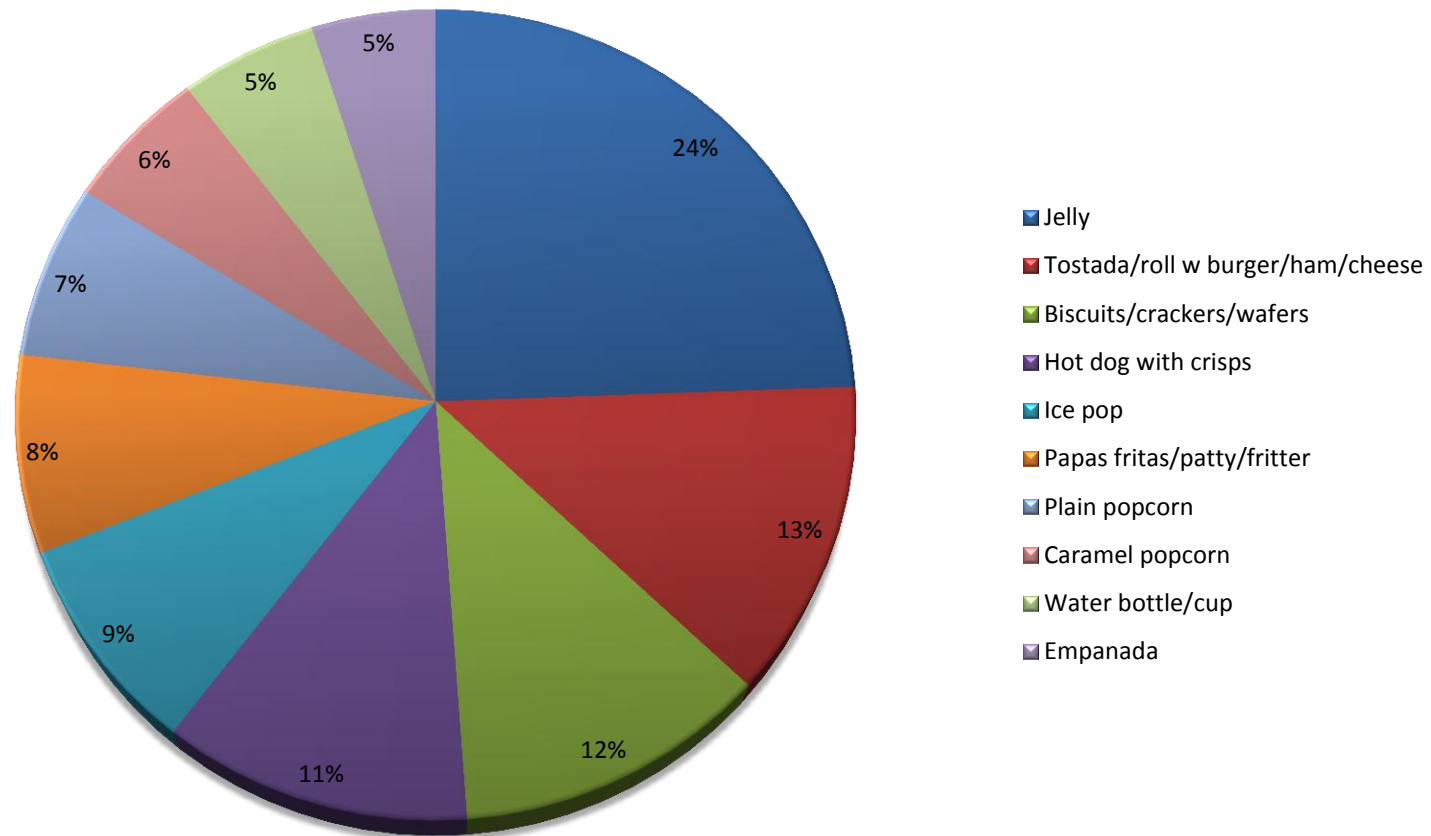
The top ten most popular snacks included (in order of popularity):

1. Jelly
2. Tostada/bread roll sandwich with hamburger, ham or cheese
3. Biscuits/wafers/crackers
4. Hot dog with crisps
5. Ice pop
6. Papas fritas/patty/fritter
7. Plain popcorn
8. Caramel popcorn (Palomitas)
9. Water
10. Empanada (containing cheese, chicken or meat)

All of these most popular snacks were purchased from the bar, none of which came from home.

The following graph details the popularity in percentages out of these top ten snacks:

## Top Ten Foods Consumed Daily by Children at Galo Plaza Lasso



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The most popular combination of snacks bought was jelly and a tostada/sandwich/hamburger. I also observed that children tended to buy the same snacks as their friends especially if they hung out in the same group. Food was also often shared between friends. However snack purchase did depend on what was available for that day e.g. no Palomitas or ice pops were available one day and it was observed a lot more jellies were purchased instead. Also the tostadas/hamburgers and empanadas might be sold out by the morning, so none would be eaten by the 12 – 15 year olds in the afternoon.

Fruit appeared to be the least popular type of snack that was available at the bar. However apple, mango and watermelon appeared to be the most popular out of those consumed (although mango was brought in by the children). Vegetables were also not widely consumed, though it was only available as a salad to be added to other dishes such as platano verde, papas, llapingacho, croissant sandwich. However it is not known whether the staff actively encourage intake of this salad or whether many children refuse it with these foods.

The 6 – 11 year olds were the largest consumers of snacks from the bar. The 3 – 5 year olds consumed much less overall, they appeared more interested in playing during their break time, and would head straight to the playground first. It may also be due to this age group being less likely to have money to be able to purchase snacks. It may also be due to desayuno escolar which is usually given to the younger children just before the break time. It was observed that teachers and dinner ladies were bringing trays of red jelly and fruit to one classroom (3 – 5 year olds) and trays of chicken and rice or sausage and chips to another classroom for desayuno escolar.

The same snacks were available for the 12 – 15 year olds later in the day, however there were less available. There was an initial rush to the bar once the bell rang however it was then only sporadic visits afterwards. This is in contrast with the 6 – 11 year old children whereby there was a constant barrage and queue waiting to be served at the bar. It should be noted however that there are almost twice as many 6 – 11 year olds as there are 12 – 15 year olds.

The few snacks that were noted to have been brought from home included:

- ✓ Chocolate – a whole packet of Kinder Bars
- ✓ Crisps – a large packet for sharing
- ✓ Nesquik chocolate milk
- ✓ Yoghurt drink – a large family-sized bottle
- ✓ Yoghurt & cereal pot
- ✓ Gatorade & other sports drinks
- ✓ Lollipop
- ✓ Liquid lollipop – literally a very sweet syrup that is squirted into the mouth
- ✓ Chewy sweets



- ✓ Sweet coloured puffed rice
- ✓ Own bottles of water or juice
- ✓ Mango
- ✓ Pear
- ✓ Orange

A note should also be made on my observation of a number, though in the minority, of overweight and obese children. They appeared to be largely within the 6 – 11 year old age group, which is concurrent with their relatively higher intake of snacks. I did also notice a few who were very young, likely to be 3 – 5 years old. These overweight/obese children were noted to be consuming during the break time every day, and their choice and quantity of snacks was indeed, conducive to weight gain.

## **Limitations**

It was somewhat difficult to observe all children's purchase and intake of the various food and drink that was available, particularly due to the nature of active children within a playground. Therefore the numbers may be overestimations if duplicate observations were made and vice versa, underestimations if observations were missed. However in order to remain inconspicuous in my investigation, this was the only available and necessary method. The numbers of children consuming the snacks is therefore only a rough estimation.

It was also difficult to differentiate between all the age groups. The 3 – 5 year olds, the 6 – 11 year olds and the 12 – 15 year olds all appeared to be in the playground together, particularly the 3 – 5s and 6 – 11s as their break times seemed to overlap over the 9 – 11 am period. During the 12 – 15 year old break in the afternoon, I also noticed younger children around and who were also consuming from the bar. Therefore no distinctions could be made between each of the age groups in terms of their eating habits. However, having said that, it appeared that all the children, whatever their age, consumed the same types of foods.

I also wonder if my presence and constant observation for the week led to the dinner ladies possibly reacting. There appeared to be an increased intake of water throughout the week whereas at the beginning on Monday there was hardly any (5 bottles compared to 29 by Friday). However though the results may be somewhat skewed from the truth, this indicates the dinner ladies do have some knowledge of healthy eating and are aware of what is better for children to consume.

## Further Areas for Development

It would be pertinent to ensure all staff that provide or serve food to the children are trained in nutrition, namely healthy eating. This would help increase their awareness of what ideally children should be consuming for healthy growth, development and function. Presentations and training seminars should be provided which would help to improve staff members' knowledge, with the aim of empowering them to provide well-balanced, nutritious snacks to the children during break time.

## Summary

The children attending Galo Plazo Lasso School are consuming largely refined carbohydrates, therefore including sugars, high fat, salty processed meats and little fruit and vegetables. The portion sizes are also excessive particularly as these are only snacks had in between breakfast and lunch. There is much work to be done in order to improve the provision of food and drink in terms of nutritional value at the school. If the following suggestions and recommendations are followed, the nutritional intake of the children will improve, hence their growth, development and function will be optimised, overweight and obesity will be controlled, and various other diet-related diseases prevented later in life. Their overall health is therefore ultimately improved, not just in the short term, but for the rest of their lives. It is vital to ingrain good, healthy eating habits from a young age in order for them to continue as they grow into adulthood.

## Conclusion

There is an overwhelming majority of snacks purchased from the school bar by the children during their break time. It is therefore imperative that the school provide access and actively encourage consumption of healthy, nutritious snacks, since its consumption plays an important role in the nutrition of school-aged children in The Galapagos.

## Suggestions for Snacks and Nutritional Recommendations

- ✓ Milk – as a drink. This should be substituted for the jelly brought to classrooms.
  - Whole for the youngest children (3 – 5 year olds).
  - Semi-skimmed for primary-aged children and secondary-aged children (6 – 15 year olds).
  - Or flavoured milk at the very least, or even Huesitos (fruit juice carton) if a child dislikes milk.
- ✓ Yoghurt pot or yoghurt drink.
- ✓ Water – should always be actively encouraged.

- ✓ Fruit – can be fresh or ready-prepared or from a tin - should be actively encouraged. Mixed fruit salad in small plastic bags or cups should be offered. To include mango.
- ✓ To include small chopped up pieces of fruit in the jelly e.g. mango, orange, pear, peach, plum, passion fruit, papaya, pineapple. A small spoon or fork would also need to be provided.
- ✓ Fruit juice – pure fruit juice or mixed with milk, yoghurt or water (batidos). Huesitos should be encouraged as it is also a good source of calcium and fibre in addition to vitamin C.
- ✓ Tostada/bread roll to always include salad in addition to hamburger/ham/cheese.
- ✓ Use of wholemeal/wholegrain/multigrain bread rolls and hot dog buns.
- ✓ Do not add crisps to the hot dog but encourage red onion and salsa instead.
- ✓ Mayonnaise should be limited in quantity on hot dogs, papas, hamburgers and low fat mayonnaise or salad cream used instead.
- ✓ Salsa with plenty of vegetables could be used instead of tomato ketchup in these foods.
- ✓ Vegetables – that can be picked at i.e. bite-sized pieces of carrots, celery, cucumber, sweetcorn, baby tomatoes, peppers.
- ✓ Snacks that are oven-baked and not fried e.g. platano verde, harina, empanada.
- ✓ IF food is fried, to use monounsaturated oil e.g. olive or canola oil and sparingly.
- ✓ Do not add sugar to the empanadas.
- ✓ Vegetables or salad should be included in the chicken/sausage and rice meals provided to the classrooms (refer to Desayuno Escolar Menu). They should also always be offered and encouraged along with papas, sandwiches, hamburgers, llapingacho and platano verde. Even added inside empanadas would encourage intake.
- ✓ All meals and snack bowls should be as balanced as possible. There should not be more than one type of carbohydrate within snack bowls e.g. it was observed one day that chicken was served with rice and papas but there were no vegetables. One of the carbohydrates should be substituted for vegetables.
- ✓ All snacks and drinks should be a small portion size suited for children – the younger the child, the smaller the portion size. In particular:
  - The bag of plain popcorn should be at least half its current size (similar to the Palomitas 20 g packet size would be ideal).
  - The empanadas should be reduced to half its current size.
  - There was a whole long packet of biscuits that were also sold – 1 child's portion size is likely to be only ¼ of this packet, and therefore should be reduced as such.



### ***Desayuno Escolar***

An example menu has been devised for the young children's desayuno escolar, which they consume just before break time at 9.00am. Given this timing, this should be solely a snack that the children have between their breakfast and lunch. As such, the portion sizes particularly for the meal-like items should be small, suitable for 3 – 5 year olds i.e. no larger than a small bowl/plate. The menu should therefore also encompass all of the above nutritional recommendations.

To further support the nutritional recommendations suggested, below are tables detailing the nutritional content of current snacks consumed versus recommended snacks (estimated from The USDA National Nutrient Database for Standard Reference, 2011). It is clear from these that the current foods are calorific, high in fat particularly saturated fat and cholesterol, high in salt (sodium), low in fibre and with little other nutritive value.

### Nutritional Content of The Most Popular Current Snacks

	Portion Size/g	Energy /kcal	Protein /g	Carb /g	Total Fat/g	Saturated Fat/g	Cholesterol /mg	Sodium /mg	Fibre /g
Jelly	180 (1 cup)	112	2	26	0	0	0	135	0
Hamburger with mayo, ketchup	114	294	15	33	12	5	33	560	2
Biscuits – choc chip cookies	45 (1 pkt = 4 cookies)	220	2	30	10	6	0	180	0
Hot Dog with mayo, ketchup, crisps	80 (1/2 Frankfurt er)	307	10	29	17	5	27	675	1

### Nutritional Content of Recommended Healthier Snacks

	Portion Size/g	Energy /kcal	Protein /g	Carb /g	Total Fat/g	Saturated Fat/g	Cholesterol /mg	Sodium /mg	Fibre/g
Ensalada de fruta	249	124	1	32	0	0	0	12	3
Tostada de atun y ensalada	100	228	12	22	11	2	19	450	6
Platano verde con queso y ensalada	½ bolon al horno	200	3	30	10	2	0	107	7
Cereal con leche semidescremada y durazno	30 branflakes	197	7	41	3	1	8	267	7



## Menu de Desayuno Escolar



	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<b>Week 1</b>	<b>Maduro con queso y tomate</b>  <b>Leche</b>	<b>Yogur</b> <b>Mango</b> <b>Jugo de tamarindo</b>	<b>Sanduche de jamon y ensalada</b>  <b>Leche de chocolate</b>	<b>Vegetales mixtas</b>  <b>Yogur de pera</b>	<b>Cereal con leche</b> <b>Durazno</b> <b>Agua</b>
<b>Week 2</b>	<b>Empanada con carne y vegetales</b>  <b>Agua</b>	<b>Palomitas</b> <b>Sandia</b> <b>Leche</b>	<b>Platano verde con queso y ensalada</b>  <b>Jugo de tomate de arbol</b>	<b>Gelatina con frutas mixtas</b>  <b>Leche</b>	<b>Patata frita</b> <b>Naranja</b> <b>Yogur de maracuya</b>
<b>Week 3</b>	<b>Huevo cocinado con pan integral</b>  <b>Pera</b> <b>Leche</b>	<b>Pollo, arroz y vegetales</b>  <b>Agua</b>	<b>Yogur y cereal</b> <b>Ciruela</b> <b>Jugo de manzana</b>	<b>Harina con miel y frutas</b>  <b>Leche de frutilla</b>	<b>Torta de chocolate</b> <b>Platano</b> <b>Jugo de naranja</b>
<b>Week 4</b>	<b>Tostada de atun y ensalada</b>  <b>Yogur de durazno</b>	<b>Palomitas</b> <b>Manzana</b> <b>Leche</b>	<b>Salchicha, papas fritas y vegetales</b>  <b>Agua</b>	<b>Ensalada de fruta</b>  <b>Leche</b>	<b>Llapingacho con ensalada</b>  <b>Jugo de pina</b>