

SPACE LUNCH

KAREN CASEY
SEPTEMBER 26, 2024

THEME MEAL SUMMARY

PURPOSE

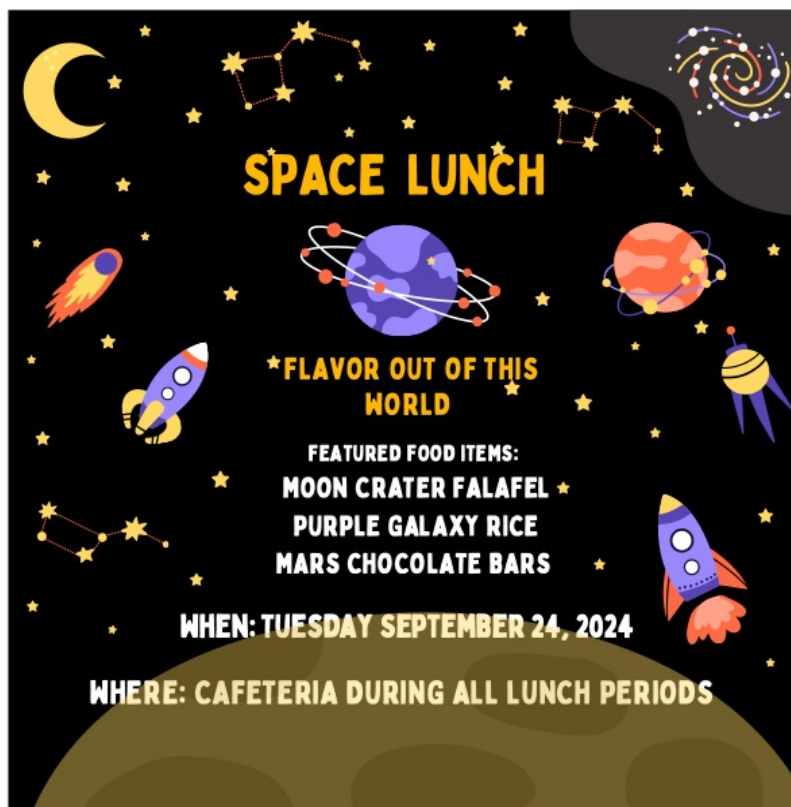
Use the idea of “What do Astronauts Eat” to motivate more healthy, vegetarian eating, increase participation in the school lunch program and introduce new foods to Elementary school age kids.



THEME CONCEPT & MARKETING MATERIAL

Astronauts and space travel are concepts that young children enjoy learning about and fuel their imagination. The vision of this project was to link a fun topic that is easy for everyone to relate to, together with novel new foods to help facilitate and educate students about healthy eating habits. Combining space concepts with food shape and color together with school spirit we created an exciting and fun day. As a team, we set a record for school lunch purchases, reflected in a 38% increase in average daily sales.

The marketing concept of the meal was a Space Lunch, branded to create "Flavor Out of This World". The team added creative names to existing food items to help make them more appealing and added new ingredients menu items. A flyer was used to market the event, along with food samples prior to the event.



PROJECT SUMMARY

The complexity of this project, combined with the compressed timeline required a well-organized and detailed plan from the onset. Most of the project activities were hands-on tasks such as: conducting cooking experiments, shadowing kitchen staff, food sourcing, recipe and food research, trial and error with kitchen equipment and then preparing and serving food. The research tasks included planning, reviewing nutritional information, documenting final recipes, ordering and budgeting food, and project documentation.

Guidance was provided by the Kettering School District Food and Nutrition Service Director, Mary Lynne Bierman as well as the Andrews Dietetics Internship Director, Sherri Isaak.

The event occurred at Orchard Park Elementary School on September 24, 2024. The participants in the project included Allison Benjaman and Karen Casey, the Kitchen Staff, Kelly Conley, and Jane; the food service manager Andrea Hale, and a third student intern Yale Godfrey.

The most significant project challenges were managing the short schedule, sourcing ingredients and convincing the customers to sample new food. The project did not have an upfront budget, however Kettering schools paid for the major ingredients.

The positive outcomes were an increase in daily lunch sales by 38% over the average, customer surveys indicating a 46% "Out of this World" satisfaction rating for the new foods, and no health/safety issues or unintended plan changes. This project was FUN. There were many new things learned throughout the process, which are documented below.

GOALS

This project had two sets of equally important, inter-related goals.

1. Community: Educate the community, inclusive of the food service team, students and staff about the benefits of healthy foods
2. Learning: Provide Dietetic Internship students a supervised learning opportunity to envision, lead, manage and then execute a complex project.

Details of how those goals were met, and the activities required to achieve the results are in the remainder of this report.

SUMMARY OF COMMUNITY GOALS AND EXPERIENCE

Community Goal	Summary of Experience: How Accomplished
Introduce new vegetarian entrée onto school menu	<ul style="list-style-type: none">• Provide samples to the students and staff• Research sourcing of food for foodservice team• Demonstrate the ease of preparing to kitchen staff• Demonstrate the positive response from customer to all stakeholders• Justify cost & health benefits by calculating meal cost and nutrient information
Increase participation in school lunch program	<ul style="list-style-type: none">• Creative marketing of an interesting theme• Use flyers to improve staff, faculty, parent communication• Prepare and distribute samples the day before the event• Achieve a 38% increase in daily average sales
Add new interest to existing foods	<ul style="list-style-type: none">• Invent creative descriptions of food that are already on the Kettering School system menu• Source ingredients from the existing procurement chain
Teach children to try new foods	<ul style="list-style-type: none">• Serve 150 tastings of Falafel balls with purple rice• Reward with customers with a sticker for trying new food• Talk about the nutrient benefits of the food when surveying customers

SUMMARY OF LEARNING GOALS AND EXPERIENCE

The Theme Meal is a capstone project for the food service rotation, therefore learning objectives and accomplishments were critical. A summary of the alignment of CRDNS with project activities and experiences are listed in the table below.

CRDN# Summary	Activity and Experience	Summary of Experience: What went Well What needed Improvement
1.3: Justify Programs	<ul style="list-style-type: none"> • Gained support of Director to purchase Falafel • Evaluated vegetarian content of the existing menu • Demonstrated the low cost of \$1.80 of new Astronaut cup menu entree 	<ul style="list-style-type: none"> • Advocated for a new menu item, and unusual foods (Falafel, purple rice) • Learned the cost of paper goods (Styrofoam cup) and bottled Yum Yum sauce was higher than expected • Abandoned the Tzatziki sauce due to lack of interest from stakeholders • Learned that a scratch recipe of Yum Yum sauce did not match the bottled sauce taste • Calculated the new menu item cost, as a justification to put it on the menu
1.4 Conduct Project	<ul style="list-style-type: none"> • Conducted both a formal and informal survey of students during lunchtime • Received positive feedback from Food Service Director, Kitchen Staff and school Principal 	<ul style="list-style-type: none"> • Learned that survey results indicated Falafel and purple rice should be two separate menu items – served separately • Observed that describing a food as vegetarian could provoke a negative reaction • Learned that one negative comment about the food, would cause other students to reject trying a sample
1.5 Critical thinking	<ul style="list-style-type: none"> • Food sourcing challenge – Gordon Food Service (used by Kettering Schools) vs US Foods (used by Dayton Hospital) offer different tasting & nutrient content Falafel products • Complexity in planning a project schedule and a production schedule • Juggling activities the day of the event – serving, surveying, celebrating with the need to take picture and document results 	<ul style="list-style-type: none"> • Unanticipated time required to visit 5 different stores to source food ingredients • Repeated testing of the Falafel, purple rice items: at home, and in the kitchen to sample and compare products • Observed kitchen staff, in advance, to create an accurate production plan • Sought input from two subject matter experts about using industrial steamer • Researched recipes online to build confidence in the cooking times • Used a hard copy of the production schedule as a guide helped maintain focus during the chaos of serving lunch – things move fast
2.3 Active Participation	<ul style="list-style-type: none"> • Hands on meal preparation in the kitchen before the event, and during the event • Served food • Washed dishes 	<ul style="list-style-type: none"> • Mastered the industrial steamer – perfect purple rice • Learned rice would take at least an hour to cook to make it tender – adapted recipe • Learned creative ways to pre-stage the cups to keep falafel and rice warm, to ensure it tasted good

	<ul style="list-style-type: none"> Sanitized my work area 	<ul style="list-style-type: none"> Established plan for use of warming ovens and food containers – knew the smaller plastic cups would not melt Led by example to motivate other intern participation in food serving surveys and dish washing
2.10 Professional attributes	<ul style="list-style-type: none"> Engaged the Principal and school staff in event planning Set a positive tone for the event and day 	<ul style="list-style-type: none"> Regretted not including the school nurse in advance, to find out what type of dietary restrictions to accommodate Unable to real time adapt to a very specialized diet
2.11 Cultural Humility	<ul style="list-style-type: none"> Presenting food as astronaut food vs vegetarian food, lowered resistance Engaged the kitchen manager early in the planning process 	<ul style="list-style-type: none"> Requested the kitchen manager and the cook provide feedback on missteps or improvement suggestions. This gave them a chance to teach us and eased the stress of working together in a small space.
4.4 Financial data	<ul style="list-style-type: none"> Used the Kettering Gordon Food Service account to research food product choices and develop a complete budget 	<ul style="list-style-type: none"> Learned there was not easy bulk source for the purple rice, it had to be purchased through Amazon/Whole Foods
4.5 Finance planning	<ul style="list-style-type: none"> Planned budget assumed a lower cost of the Yum Yum sauce Door cover and astronaut toy were very popular 	<ul style="list-style-type: none"> Scratch recipes for Yum Yum sauce did not get positive feedback – switching to bottled sauce increased costs Exceeded planned decoration budget (\$85 vs \$30)
4.8 Project Plan	<ul style="list-style-type: none"> Created detailed plans for budget and equipment Conducted a market survey 	<ul style="list-style-type: none"> Switched from serving a full entrée to only a tasting of Falafel and purple rice led to an excess Falafel, that was sent to the High School in time for their lunch Market survey did not include staff feedback
5.6 Team	<ul style="list-style-type: none"> In person thank you to Principal, Food Service Director, Kitchen team Thank you letters to kitchen team 	<ul style="list-style-type: none"> Packaged some left-over sauce and rice for the kitchen staff Gave the school the decorations to keep for future events

THEME MEAL PLAN

Due to the short time to plan and conduct this meal, a detailed day by day plan was established before the start. Met with the internship

preceptor on the first day on site to explain the project and describe the proposed plan. This step was the most critical in the entire project, as it formed a basis for the food we would develop, and more importantly buy in to the project vision and goals.

Activity Discussion	Complete Date	Duration
Initiate Discussion w/ Food Service Director - Theme Meal Project	9/11/24	1 Day
Visit school to meet kitchen staff and Principal	9/13/24	1 Day
Begin Menu Development: Source Ingredients, Finalize Menu		5 Days
Tzatziki Sauce: Sample	9/13/24	1 Day
Purple Rice: Research, Procure, Cook, Sample	9/16/24	3 Days
Falafel: Research, Procure, Cook, Sample	9/16/24	5 Days
Sample Bibi bop Yum Yum Sauce and Purple Rice	9/14/24	1 Day
Create scratch Yum Yum Sauce	9/14/24	2 Days
Begin looking for prepared sources of Yum Yum Sauce	9/14/24	1 Day
Sample three bottled brands of Yum Yum Sauce	9/15/24	1 Day
Finalize Menu		3 Days
Produce Draft Budget, Food Scaling, Cost	9/15/24	3 Days
Provide recommended list of suppliers and order need dates	9/17/24	1 Day
Review with Preceptor	9/17/24	1 Day
Develop Creative Description of Food	9/17/24	1 Day
Update Menu Flyer - Send Electronically to School	9/17/24	1 Day
Procure Ingredients		3 Days
Experiment with sample cup sizes, finalize choice, check Inventory	9/16/24	1 Day
Order Falafel - Gordon Food Service	9/17/24	1 Day
Order Rice: Whole Foods	9/18/24	1 Day
Buy Yum Yum Sauce: Meir Foods	9/18/24	1 Day
Identify Needed Equipment		1 Day
Rice Steamer	9/18/24	1 Day
3 oz clear cups	9/18/24	1 Day
Squirt Bottles - sauce	9/18/24	1 Day
Build out Day of Production Schedule	9/19/24	1 Day
Practice cooking rice & falafel, kitchen tasting	9/23/24	1 Day
Buy Decorations	9/23/24	1 Day
Conduct Event	9/24/24	1 Day
Gather Customer Survey Inputs	9/24/24	1 Day
Compile and Write Final Report	9/26/24	2 Days

MENU AND RECIPE DESIGN

The menu design originated from the Kettering School District published lunch menu which can be found here:

<https://www.ketteringschools.org/district-office/departments-of-food-nutrition-services>. In the initial meeting with the Food Service

Director, the team discussed candidate dates and menu options. The team picked the menu for chicken tenders, broccoli and dinner rolls.

Circled in pink, the plate waste study, was planned for September 13th, and the Theme Meal planned for September 25th. Due to

schedule impacts, Theme Meal lunch was changed to September

24th, as shown by the purple arrow. Notes on the page were market survey and planning steps discussed in the first meeting.

9/9/24, 12:23 PM

YOGO: yogurt, String cheese, breadbasket item
Salad
Chicken Patty on Bun
(daily vegetables and fruits and milk are available with all choices)

2024

daily as well
May include: Boccoll, Green beans, Corn, Cauliflower, Baked beans and/or Sweet peas

Monday	Tuesday	Wednesday	Thursday	Friday
2 HAPPY LABOR DAY	3 Taco Building Day Black Beans Salsa Banana Assorted Fruits and Vegetables 1% Milk or FF Milk	4 Pepperoni Ripper Grape Tomatoes Baby Carrots Ranch Dip Pears Assorted Fruits and Vegetables 1% Milk or FF Milk	5 Popcorn Chicken Pasta Alfredo Steamed Broccoli Peaches Assorted Fruits and Vegetables 1% Milk or FF Milk	6 Cheese or Pepperoni Pizza Romaine Salad Pineapple Assorted Fruits and Vegetables 1% Milk or FF Milk
9 Cheeseburger On Bun Crispy French Fries Cherry Tomatoes Baby Carrots Apple Slices Assorted Fruits and Vegetables 1% Milk or FF Milk	10 Rotini Bake w/ Meat Sauce Breadstick Romaine Salad Strawberry Cups Assorted Fruits and Vegetables 1% Milk or FF Milk	11 Soft Pretzel Cheese Sauce Celery Sticks W/Peanut Butter Peach Cup Assorted Fruits and Vegetables 1% Milk or FF Milk	12 Egg Omelet w/ Colby Cheese Dutch Waffle Hashbrown Patty Orange Juice Assorted Fruits and Vegetables 1% Milk or FF Milk	13 3 Cheese Garlic Bread Green Beans Fresh Grapes Assorted Fruits and Vegetables 1% Milk or FF Milk
16 Hot Dog On Bun Baked Beans Baked Chips Fresh Apple Assorted Fruits and Vegetables 1% Milk or FF Milk	17 Beef & Cheese Nachos Sweet Corn Assorted Fruits and Vegetables Strawberry Cup 1% Milk or FF Milk	18 Bosco Sticks Marinara Sauce Romaine Salad Pineapple Assorted Fruits and Vegetables 1% Milk or FF Milk	19 Breaded Chicken Dinner Roll Mashed Potatoes Green Beans Blueberries and Cream 1% Milk or FF Milk	20 Grilled Cheese Tomato Soup Celery Goldfish Crackers Mixed Fruit Assorted Fruits and Vegetables 1% Milk or FF Milk
23 Scrambled Eggs Waffles w/syrup Tater Tots 100% Orange Juice Assorted Fruits and Vegetables 1% Milk or FF Milk	24 Walking Taco Refined Beans Tossed Salad Peach Cup Assorted Fruits and Vegetables 1% Milk or FF Milk	25 Chicken Tenders Broccoli Florets Dinner Roll Assorted Fruit Assorted Fruits and Vegetables 1% Milk or FF Milk	26 Spaghetti with Meat Sauce Romaine Salad Assorted Fruits and Vegetables 1% Milk or FF Milk	27 Assorted Pizza Cucumbers W/Dip Pineapple Assorted Fruits and Vegetables 1% Milk or FF Milk
30 Corn Dog Baked Beans Steamed Carrots Orange Halves Assorted Fruits and Vegetables 1% Milk or FF Milk	<p>This institution is an equal opportunity provider. Menus subject to change based on food availability</p> <p>Assorted Fruit Choices Daily include: Assorted Applesauce, Peaches, Pears, Pineapples, Fresh Apples, Oranges, Bananas and Grapes</p> <p>We will accommodate as many dietary requests as possible. Note if there is a vegetarian option (VO) in the daily menu box, we can make the main hot choice without meat.</p>			

Handwritten notes and markings on the menu include:

- Monday:** "Finish Plate Waste" (circled in pink), "Take Flies" (circled in pink), "Test Recipe" (circled in pink), "Order for students" (circled in pink), "Write Survey" (circled in pink), "Order decorations" (circled in pink).
- Tuesday:** "Write menu" (circled in pink), "Production Schedule" (circled in pink), "Decorate sign" (circled in pink).
- Friday:** "VO" (circled in pink) for items 6, 13, 20, and 27.
- Other:** "Production Schedule" (circled in pink) near item 18.

URL: <https://www.schoolnutritionandfitness.com/webmenus2/#/view?id=66a8ef61e96f1e647bb65e2&siteCode=13951>

MENU THEME PARAMETERS

One of the biggest planning parameters was schedule because the team was working to complete the project in the final week of the Kettering rotation, and to adapt to school district staff availability. In the initial planning session, it was decided to conduct the event at a school that served approximately 120 lunches per day, had a medium to large size kitchen that 4-5 people could fit inside and had a steamer for the rice. Another parameter was ensuring the school had at least two permanent staff members, not substitutes, in order to provide experienced subject matter experts to facilitate the process.

One unexpected parameter was ensuring buy in from the Principal. We talked in person with the Principal on-site to make sure she knew who we were, why we were there, and explain the vision of the project. She was very enthusiastic and helped with marketing our meal to the student and parents, which brought in a school spirit aspect to the project. Students came to school wearing space themed shirts, eager for their lunch activity.

MENU

After doing initial food sourcing research using Gordon Food Services, a menu that consisted of renaming existing food items, as well as introducing new foods.

A new recipe/menu item was the Astronaut Cup, inspired by the Bibibop® cup, an item on the kid's menu at a popular Asian fast-food restaurant. The cup is a layered bowl with starch, protein, vegetable and a sauce. A second inspiration was the work we did at Dayton Children's Hospital to source new foods and recipes that minimize processed foods and are easy to prepare and serve.

Broccoli and chicken tenders were already on the school menu, so the idea of the Astronaut Cup was to bring in Falafel balls as a new source of protein, purple rice as a new starch, and either Tzatziki or Yum Yum as a new sauce. New items were experimented with, cooked and tasted prior to finalization of the menu shown below. Once finalized the menu was distributed in hard and soft copy to the school, kitchen staff, and emailed to all parents.



RECIPES

The Astronaut Cup recipe required a source of Falafel, purple rice and a sauce. Once the ingredients were sourced, they were cooked in a home kitchen to ensure taste, cooking times, ingredient availability, serving size and packaging.

The Tzatziki sauce recipe was developed at Dayton Children's Hospital but there was not enough stakeholder interest at Kettering participate in an office tasting.

The Yum Yum sauce was developed from an online recipe (1) but was not well received in the first round of tasting. It was made with vegan mayonnaise, ketchup, sugar and paprika and looked and tasted very different from bottled sauce.

The purple rice used by the Bibibop® Asian restaurant is white rice cooked with black rice to "stain" the rice color purple. While that process does transfer some of the anthocyanin antioxidant, stained rice does not have the same fiber and protein nutrients as true purple rice. Purple rice is like brown rice, it is a whole grain, that has the bran and germ still intact. A decision was made to source high quality, purple rice (2).

The kitchen had an industrial steamer, however the water ratio and steaming times needed to be worked out. After discussing how to establish water to rice ratio's, a sample batch was cooked inside the steamer for 15 minutes. After discovering it was undercooked, the cook time was increased from 15 minutes to 45 minutes. Using a 2:1 water to rice ratio and increasing cooking time resulted in a perfectly fluffy and aromatic rice. Referencing a USDA recipe for brown rice, both water content and timing were adjusted (3).

The same brand of Falafel offered by Gordon Food Services was found in Meijer grocery store, and a source of purple rice was found at Whole Foods. The food was weighed, cooked and tasted to finalize measurements to determine portion size and scoop size. This step was required to help with budget planning and finalization of the standardized recipe shown in the next section.



RECIPE STANDARDIZATION AND NUTRIENT INFO

The recipe was the result of many different inputs and changes. The two most complex parts of standardization were the rice cooking time and the finalization of the Yum Yum sauce.

RECIPE NAME: Astronaut Cups: Moon Crater Balls, Purple Galaxy Rice & Quantum Sauce		
Total # of servings: 100 Astro Cups	Cooking method: Oven, Steam	Serving size: 1- 5oz Cup
Total Recipe weight: 6.5 oz	Oven Temperature: 350	Cost per serving: \$1.80
Ingredients	Quantity	Instructions
Purple Galaxy Rice: Ralston Farms Purple Rice	4 – 16 oz Cartons	1. Add 4 cartons of dry rice to a large steamer pan. Do not pre-rinse rice. 2. Mix 4 quarts of water into the pan 3. Mix in 4 teaspoons of salt 4. Stir the mixture well until all rice is fully covered 5. Place lid on the pan, and steam for 50 minutes
Water	4 quarts	
Salt	12 teaspoons	

		<p>6. Remove from oven, stir well and let sit for at least 10 minutes to further absorb water.</p> <p>Makes 3 Large Steamer Pans of Rice</p>
Moon Crater Balls: Franklin Farms Falafel Balls, Frozen	300	<ol style="list-style-type: none"> 1. Line a large baking pan with wax paper 2. Arrange falafel balls onto the pan, breaking apart any that are clumped together. Separate balls so they are not touching 3. Bake in oven for 15 minutes 4. Check internal temperature to ensure 135° in center 5. Add additional 5 minutes to cooking time until temperature is reached. 6. Cool for at least 5 minutes before serving.
Quantum Sauce: 16 oz bottles Terry Ho's Original Yum Yum Sauce.	<p>4 – 16 oz bottles</p> <p>3 Large Squirt Bottles</p>	<ol style="list-style-type: none"> 1. Using a funnel, fill each bottle with sauce 2. Store in the refrigerator until ready to use

SERVING INFORMATION

Assemble the Astronaut Cups into 5oz white Styrofoam cups by adding purple rice with a #8 dish scoop and top with three falafel balls. Arrange cups on a narrow rectangular tray, cover with wax paper, and place in the warming oven until 5 minutes before serving. Let cool at room temperature for at least 5 minutes before drizzling with sauce. Keep cups warm until serving.

Nutrition Info for 1- 5oz cup Serving:

Calories: 413 kcal/serving; **Total Fat:** 11 g /serving; **Sodium:** 200 mg/serving; **Carbohydrate:** 68g; **Sugar** 6g. **Fiber:** 8 gm; **Calcium:** 16 mg; **Iron:** 4 mg; **Potassium:** 650 mg.

Allergen Information: Falafel and Rice are both Vegan. The Quantum Sauce is Gluten Free but contains soy.



NUTRIENT INFO

This is a vegetarian meal, and the rice and Falafel are vegan, the sauce contains eggs.

The purple rice was truly delicious. It contains anthocyanin, an antioxidant that gives the rice color. It also contains twice the protein as brown rice and is a good source of fiber. It has a slightly nutty texture and is aromatic like Jasmine rice. One customer did not like the distinct aroma.

The falafel balls are made from whole foods: garbanzo beans, zucchini, parsley and cilantro and are also a good source of protein. The texture is similar stuffing and has a breaded consistency. They do have a strong flavor, and they contain cilantro which is an ingredient some people claim tastes like soap.

The Yum Yum sauce is made from soybean oil, sugar, egg yolk and vinegar and is high in fat, which is probably why the homemade sauce mixed with paprika and vegan mayonnaise did not look or taste as good as the bottled sauce. In total, 4 kinds of Yum Yum sauce were taste tested. The best was Bibibop bottled, followed by Tommy Ho, then La Choy then Kroger brand. The Tommy Ho sauce was also gluten free, and even though it cost more, was easier to source than the Bibibop sauce.

Food Item	Serving Size	Calories	CHO (g)	Protein (g)	Fat (g)	Sodium (mg)	Sugar (g)
Falafel Balls	3 balls (2 oz)	230	37	11	6	160	5
Purple Rice	2 oz dry	140	30	6	0.5	0	0
Quantum Sauce	1/4 oz (1/2 T.)	42.5	1.25	0	4.25	40	1
Total		412.5	68.25	17	10.75	200	6
Yum Yum	2 tablespoons	170	5	0	17	160	3 grams

Franklin Farms Falafel	Purple Rice	Yum Yum Sauce

RECIPE COSTING FORMS

MENU AND RECIPE COSTING FORMS

To develop the costs, actual Gordon Food Service items were researched, and then scaled appropriately.

The total cost of the Astronaut Cups, including labor are \$1.80 each with in line with the average school lunch cost of \$1.50-\$2.00. The primary cost drivers are labor, the rice and bottled Yum Yum sauce.

The data summarized below is contained in an Excel Workbook, that automatically calculates the costs.

FOOD Costs

Gordon Food Service Item #	Description	How Packaged	# Servings/ Case or Unit	Case/ Unit Cost	# to Serve	Raw # Units (Case/Pakg/ Bottle)	Order # Units	Total Cost/ Price (if taxed, +S/H)
522800	Chicken Tenders	Frozen, 5lb bag, 2/Case, 3 oz serving	53.3	\$ 43.15	200	3.750	2	\$ 86.30
610902	Broccoli Florets	Fresh, 4 lb bag, 6/Case	96	\$ 54.66	100	1.042	1	\$ 54.66
576964	Dinner Rolls	Frozen, 12 Ct bag, 8/Case	96	\$ 34.18	200	2.083	1	\$ 34.18
818895	Apples, sliced	Fresh, 5lb bag, 4/Case	106	\$ 58.80	100	0.943	2	\$ 117.60
379028	Falafel Balls	Frozen, 160 per case, 3 per serving	53.3	\$ 62.27	100	1.875	2	\$ 124.54
Whole Foods	Purple Rice	Dry, 16 oz carton, 4 cartons, 64 oz Total, 2 oz dry	48	\$ 4.99	100	2.083	4	\$ 34.91
522800	Yum Yum Sauce	16 oz bottle, 1/4 oz per serving	64	\$ 4.79	100	1.563	6	\$ 28.74
Subtotal								\$ 480.93

Paper/Decorations Costs

856672	Styrofoam Cups				100		1	\$ 5.50
	Other Misc.: Balloons, Door Hanging, Astronaut							\$ 80.59
Subtotal								\$ 86.09

Labor Costs: Astronaut Cups Only

	Hourly Rate	Task Description	Hours	Total
Director	\$28.57	Review and provide input on menu, train on food service ordering, order food	1	\$28.57
Kitchen Manager	\$16.81	Receive food, train intern on equipment use (steamer), school schedule, kitchen layout	1	\$16.81
Cook	\$13.65	Prep sauce into squeeze container, prep/cook balls, prep/cook rice, serve, clean dishes	1	\$13.65
Subtotal				\$ 59.03

Total Meal Costs

Food Costs	\$ 480.93
Paper Costs	\$ 86.09
Labor Costs	\$ 59.03
Total	\$ 626.05

Astronaut Cup Per Serving Costs

Total Meal Costs (Chicken, Broccoli, Fruit, Cup)	200 Served	\$ 3.13
Astronaut Cups w/ Decorations	100 Served	\$ 2.70
Astronaut Cups Food and Labor Only	100 Served	\$ 1.80

To improve readability, the cost breakdown is as follows.

TOTAL MENU FOOD, PAPER AND LABOR COST FOR 200 STUDENTS

Total Meal Costs	Food Costs	\$ 480.93
	Paper Costs	\$ 86.09
	Labor Costs	\$ 59.03
	Total	\$ 626.05

TOTAL MENU FOOD COST ONLY

Gordon Food Service Item #	Description	How Packaged	# Servings/ Case or Unit	Case/ Unit Cost	# to Serve	Raw # Units (Case/Pakg/ Bottle)	Order # Units	Total Cost/ Price (if taxed, +S/H)
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NEW RECIPE ASTRONAUT CUP PER SERVING COSTS

Astronaut Cup Per Serving Costs		
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Astronaut Cups w/ Decorations	100 Served	\$ 2.70
Astronaut Cups Food and Labor Only	100 Served	\$ 1.80

DETAILED LABOR & DECORATION COSTS

Labor Costs: Astronaut Cups Only							
	Hourly Rate	Task Description				Hours	Total
Director	\$28.57	Review and provide input on menu, train on food service ordering, order food				1	\$28.57
Kitchen Manager	\$16.81	Receive food, train intern on equipment use (steamer), school schedule, kitchen layout				1	\$16.81
Cook	\$13.65	Prep sauce into squeeze container, prep/cook balls, prep/cook rice, serve, clean dishes				1	\$13.65
Subtotal							\$ 59.03

Paper/Decorations Costs							
856672	Styrofoam Cups			100		1	\$ 5.50
	Other Misc.: Balloons, Door Hanging, Astronaut						\$ 80.59
Subtotal							\$ 86.09

PURCHASE ORDER AND RECEIPTS

9/18/24, 8:41 AM

Ordering 1 Gordon Food Service



ORDER #5001432573-01

ORDER DETAILS

Submitted on: September 17, 2024 at 11:02 AM EDT by Workflow RFC User

Status: ✔ Confirmed

PICKUP DATE
Thursday, Sep. 19

AVAILABILITY
After 11:00AM EDT

CUSTOMER
Kettering Orchard Park
#54788005

STORE LOCATION
TBD

ITEM TOTALS
1 Lines, 2 Total Items

TOTAL WEIGHT
22.54 LB

QUANTITY ORDERED
2

EST. TOTAL 6124.64

ITEM	STATUS	UNIT	PRICE	QTY ORDER	QTY SHIP	TOTAL RECEIVED
Falafel Ball, Frozen #379028 Franklin Farms 1 Ounce/Package, 160 Packages/Case		Case	\$62.27	2	2	\$124.54

https://order.gfs.com/orders/5001432573/details/store_fulfillment/01

1/1

Details for Order #112-5448922-1085041

[Print this page for your records.](#)

Order Placed: September 18, 2024
Amazon.com order number: 112-5448922-1085041
Order Total: \$34.91

Not Yet Shipped

Items Ordered

4 of: *Ralston Family Farms Purple Rice, 16 OZ*

Sold by: Whole Foods Market ([seller profile](#))

Supplied by: Other

Condition: New

Price

\$4.99

Shipping Address:

Karen Casey
5563 BROOKBANK PL
DAYTON, OH 45440-2603
United States

Shipping Speed:

Scheduled delivery

Payment information

Payment Method:

Amazon Visa ending in 9081
Earns 5% back

Item(s) Subtotal: \$19.96

Shipping & Handling: \$9.95

Total before tax: \$29.91

Estimated tax to be collected: \$0.00

Billing address

https://www.amazon.com/gp/css/summary/print.html?ref=uff_od_invoice&orderId=112-5448922-1085041#

1/2

Karen Casey
17614 E PEAKVIEW AVE
AURORA, CO 80016-3151
United States

Tip (optional): 5.00

Grand Total: \$34.91

To view the status of your order, return to [Order Summary](#).

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Kettering Party Supply

1215 E Stroop Rd
Kettering, Ohio, 45429
United States
9372933300
9372933302

Sales Receipt

09/23/2024 11:53 am

Ticket: 220000209358
Register: Register 1
Employee: Ben

Item	#	Price
Large Bouquet (7 Latex)	1	\$24.99
DOOR CURTAIN OUTER SPACE	1	\$39.99
INFLATABLE ASTRONAUT	1	\$9.99
	Subtotal	\$74.97
	Tax (\$74.97 @ 7.5%)	\$5.62
	Total Tax	\$5.62
	Total	\$80.59

PAYMENTS

Credit Card
Card Num: 8779
Type: MASTERCARD
Entry: EMV
Approval: 02346B \$80.59
ID: 5850264890
AID: A000000041010
Application Label: Mastercard

Return Policy

Within 30 days and with your receipt we will accept the following returns:
*All packaged items without damage
All items not packaged, food service items, candy, balloons and pinatas are non returnable

*Seasonal and Clearance are non returnable.
*All costumes and wigs are non returnable.

Thank You !



meijer

4075 Wilmington Pike
Kettering, OH 45440 - #102
(937)298-5800 meijer.com

The Meijer Team appreciates your business
09/18/24
Your checkout was provided by Fastlane127

SALE
GROCERY
89426300201 COOKING SAUCE 28.74 F
6 @ 4.79

TOTAL
TOTAL TAX .00
TOTAL 28.74

PAYMENTS
VISA Payment TENDER 28.74
XXXXXXXXXXXX5844 (C)
APPROVAL CODE 018138
VISA CREDIT
AID A000000031010
TC 0A9D6F290EA655C8
NO CVM REQUIRED

NUMBER OF ITEMS 6

For information on Meijer return policy
visit meijer.com



A01020R82683TQS

Tx:158 Op:578 Tm:127 St:102 15:26:38

DID YOU EARN YOUR POINTS TODAY?

Check mPerks to see how many.
Not a member yet? Download the app.

EARN POINTS. GET REWARDS!

Sign up for mPerks
to start earning points:



BUDGET REPORT

The Kettering School and Nutrition program operates like a separate profit/loss entity within the school district. While no specific budget was established, the desire was to minimize costs, and to maximize food that was already available and on the menu.

It was fortunate the school decided to support ordering the Falafel balls. The rice and sauce were not available at the Gordon Food store or through the online supplier.

The original decoration budget was \$30 and it was exceeded by \$50 however the T-shirts and kitchen labor were donated.

Summary budget

Kettering	Andrews University	Donated
Falafel- \$124.54	Rice - \$34.91	6 T shirts - \$60.00
	Yum Yum - \$28.74	Kitchen labor – \$59.03
	Decorations - \$80.59	
\$124.54	\$144.24	\$119.03

PRODUCTION SCHEDULE

The production schedule generally followed the plan that was developed in advance, however there was some adjustment in the

front end of the schedule as the start of cooking was delayed due to the need to set up decorations.

9:00 AM	Arrive on Site - Check in with Kitchen Manager...
9:15 AM	Set up Decorations - Table, entry door, balloons,
9:30 AM	Add two batches of rice into steamer
10:15 AM	Tray and bake Falafel for 15 minutes
10:30 AM	Remove Rice and stir, set one aside to cool for 10 minutes; place the other tray in warmer
10:30 AM	Remove Falafel, set one tray aside to cool for 5 minutes; place other tray in warmer
10:40 AM	Assemble First Batch of Astronaut Cups
11:00 AM	Serve First Batch of Astronaut Cups
	Collect Survey Info, hand out stickers
11:15 AM	Assemble Second Batch of Astronaut Cups
11:30 AM	Serve Second Batch of Astronaut Cups
	Collect Survey Info, hand out stickers
11:45 PM	Assemble Last Batch of Astronaut Cups
	Serve Final Batch
	Collect Survey Info, hand out stickers
12:30	Wash Dishes
12:45	Break down decorations, Thank Staff
END of Day	Compile survey info

THEME MEAL EVALUATION – CUSTOMER SURVEY & RESULTS

After the food was served, evaluator walked around and surveyed the customers on food taste, quality, temperature and texture. Most of the evaluations were positive; however, this might be skewed by the fact that stickers were offered in exchange for reviews, and second the participants were offered samples, and not required to participate in tasting.

In total, 174 data points were collected via a Customer Feedback Tool (shown below) and students provided input on one, two, three, four or all five menu items.

The most popular item was the Mars Bars followed by the Quantum sauce. One recorded theme from the customer feedback was suggestion to separate the falafel balls from the purple rice.

The concept of the Astronaut Cup was popular but difficult to measure popularity in a tasting vs counting an actual number served.

In total there were two students that gave a strong negative reaction to the Falafel balls (texture issues) and on strong negative reaction to the purple rice. All of the students liked the decorations.

 CUSTOMER FEEDBACK 			
ASTRONAUT CUP	OK.	GOOD.	OUT OF THIS WORLD.
MOON BALLS	OK.	GOOD.	OUT OF THIS WORLD.
GALAXY RICE	OK.	GOOD.	OUT OF THIS WORLD.
QUANTUM SAUCE	OK.	GOOD.	OUT OF THIS WORLD.
MARS CHOCOLATE BAR	OK.	GOOD.	OUT OF THIS WORLD.
DECORATIONS	OK.	GOOD.	OUT OF THIS WORLD.
OTHER COMMENTS AND FEEDBACK			

Space Themed Lunch Survey Results

Food Items	Ratings			Total Count	Popularity %
	Ok	Good	Out Of This World		
Astronaut Cup	16	7	6	29	21%
Moon Balls	6	10	12	28	21%
Galaxy Rice	5	17	15	37	16%
Quantum Sauce	4	4	4	12	50%
Mars Chocolate Bars	9	18	41	68	60%
Total	37	56	78	174	45%

SUMMARY

Overall, the event was well received and did not have any major issues problems. The customers were very excited, and the staff was very supportive of the event.

There were a few things that could have been improved, engaging the nurse, separating the new food items, and finding a different way to survey the students to get more specific feedback.

This project was a good first step in terms of offering additional Vegan alternatives to the student population – and introducing that into the Elementary school group can help facilitate more awareness about meat-less alternatives, not only for the students, but also the staff.

AFTER ACTION

After conducting the event, the team handed out Thank you Cards and conducted an after-action review to collect PLUS – positive feedback and DELTA – things we learned or would change next time.

The plus delta summary feedback is as follows, and the primary lessons learned are incorporated in the introduction summary section at the start of this document.

PLUS	Mary Lynne provided hands on coaching, observation, participation and feedback.
PLUS	Record breaking lunch sales, a 38% increase in sales: 234 lunches sold, average sales 170 per day.
PLUS	No safety issues or accidents with food.
PLUS	Intern from University of Cincinnati helped with serving and collecting customer feedback.
PLUS	Staff and students eagerly awaited the event, dressed for the event, parent & staff participation.
PLUS	Describing the food to the group - out loud while they waited in line, helped with customer understanding and expectations of what they would choose from.
PLUS	Tasting items staged at the end of the tray line, by the register, enabled Kitchen Manager to assist with student education.
PLUS	Having kitchen "sub" experience prior to the day helped intern have confidence cooking and serving food.
PLUS	Using stickers as a reward increased eagerness of customers to provide survey inputs.
DELTA	Prepare exact carb counts and exchanges, even for tasting items, in advance AND/OR coordinate with the nurse on the new food items would eliminate food item discussions from happening during serving (in a group setting).
DELTA	Serve Falafel, a new food, separate from purple rice to increase the number of students willing to try it (one new food at a time vs two new foods).
DELTA	Reduce Falafel batch size, cooked 220, but only served 150 Elementary, 50 to high school, wasted 20
DELTA	Exactly measure the sauce amount to get a more precise amount to purchase. Yum Yum sauce costing was reduced to 1/4 oz per serving.
DELTA	Cut tasting sizes larger for Mars Bars, recipe for 450 tasting, served 201, 40 to teachers, remaining sold as snacks the next day. Some recoup on investment.
DELTA	Let Mars Bars cool completely before covering with foil - they were soft.
DELTA	Accept that it is difficult to collect detailed objective survey data from Elementary students, and be open to subjective feedback and informal comments to guide future menu development.

REFERENCES

1. Homemade Yum Yum sauce retrieved September 13, 2024 from <https://thesaltymarshmallow.com/yum-yum-sauce/>
2. Nutrition information Bibibop purple rice, retrieved September 13, 2024 from <https://bibibop.com/nutrition/>
3. How to cook rice in an industrial steamer, retrieved September 21, 2024 from <https://healthyschoolrecipes.com/recipes/rice-oven-steamer-usda/>