Digestive Project

Create a menu for your restaurant that includes all the major food groups, breakfast/lunch/dinner, and represents a balanced diet for the day. You will then make ONE of your meals and bring it in to share with the class. That meal must contain all the major food groups (can include a drink).

Steps:

1. Look up daily food group requirements on www.choosemyplate.gov. Use one person in your group on which to base your recommended food pyramid.
2. Look up daily nutrient requirements for calories (found on website above), carbohydrates, proteins, total fats, saturated fats, sodium, and cholesterol for a person your age in one day.
3. Research the nutrient questions and create a list of the answers (some questions will be answered after you have created your meal).
4. Develop a menu for your restaurant that meets the food group requirements for the day. Each serving in the food groups will be distributed over 3 meals: breakfast, lunch, and dinner. Include the prices (real and made up) for each menu's items.
5. Pick one meal (breakfast, lunch, or dinner) to make and bring in that food.
6. Create a data chart to show the breakdown of each ingredient in the entire menu under each food group and the total daily requirements for each food group. Bold or star the ingredients that are in the meal you are making and bringing in.
7. Look up nutritional facts about the ingredients in the one meal you pick to make and create a data chart to show the nutrient values in ONE serving (this will be the actual nutrients that you are eating) and add up the amounts for each nutrient. Then, include the totals needed for the day for each nutrient (found on the nutrient label or online).
8. Create a data chart to show the names of the vitamins and minerals in each ingredient in the meal you bring in (found on the nutrient labels or online). You do not need to list the percentages.
9. EACH PERSON needs to complete the digestive process information sheet.

	Points Possible	Points Earned
Menu: - Contains a breakfast, lunch, and dinner - Descriptions of each food item that includes ingredients - Actual **cost**(food you prepare) and made-up costs (rest of menu) listed Making your Meal: - Make one of your meals – include enough food so everyone can **sample** your meal - All food groups are represented in the meal you make	1 9 1 1 5	
Data Chart: Food groups - **Categorize each ingredient** (excluding spices, condiments, or butter/oils) from your entire menu into one of the **food groups** and list the serving size amount for each ingredient. (Table 1 sample) - One row on the chart needs to include the **recommended total amounts of the 5 food groups** and be sure to list who the information is for (18 yr old female with 30-60 min of activity a day) - Bold or star the ingredients that are found in the meal that you are making and bringing in	10 11 4	

Data Chart: Nutrients - For **ONE SERVING** of your meal, create a chart to show PER INGREDIENT USED the amounts of calories, carbohydrates, total fats, saturated fats, sodium, cholesterol, and protein. (Table 2 sample) - One row on the chart needs to include the calculation of the **totals of each nutrient** for the entire meal. - One row on the chart needs to include the **recommended total amounts** of calories, carbohydrates, proteins, total fats, saturated fats, sodium, and cholesterol for a person your age in one day - Create a separate chart of the **list of the vitamins and minerals** found in each ingredient of your meal (Table 3 sample)	14 1 7 2	
Nutrient Research Questions: - How are each of the major nutrients (carbs, proteins, fats (saturated versus unsaturated), sodium, and cholesterol) **benefit or are used** in the body? - What is the difference between LDL and HDL cholesterol? - What are the negative impacts of consuming excess amounts of **each** of the nutrients? - What are the harmful effects of consuming trans fat? - Pick 10 of the vitamins and minerals for your meal. How do they **benefit or are used** in the body? - Include a **healthy or unhealthy alternative** to one ingredient in your meal you are making (change in ingredient or cooking method). Why is your choice healthier or unhealthier? Include the impact it will have on the body and how the nutrient content changes with using the alternative.	5 2 5 2 5 4	
Digestion Process: - Complete the digestive question sheet	36	
TOTAL	**125**	

Sample Data Charts

Table 1: Ingredients for all 3 meals in each food group (including how many servings are being met if you are eating ONE serving of each of your meals)

Food Group	Grains	Vegetables	Fruits	Milk	Meat & Beans
Ingredients for all meals	Cereal – 3oz **Slices of bread – 3oz** Roll – 1oz	Lettuce - .5c **Baby carrots – 1c** Green beans – 1.5c	Orange slices – 1c **Grapes - .5c** Pineapple chutney - .5c	Milk – 1c Yogurt – 1c **Cheese – 1c**	**Turkey – 1oz** Tilapia – 5oz
Total for Day	7 oz	3 cups	2 cups	3 cups	6 oz

Recommendations are for a Female Age 30 with 30-60 minutes of exercise

You can determine ounces by looking at the total ounces in the package, then divide by the number of servings in the package. This will tell you ounces per serving. That will be the number you write down for grains and meats.

Table 2: Nutrient breakdown for each ingredient for ONE serving size per dish

	Calorie	Carbs	Proteins	Total Fats	Saturated Fats	Sodium	Cholesterol
Dish 1							
- Bread	90	26 g	4 g	3 g	1.5 g	25 mg	20 mg
- Tomato sauce	125	14 g	8 g	4 g	0 g	50 mg	5 mg
- Pineapple	40	15g	8 g	0 g	0 g	25 mg	5 mg
- Cheese	60	5 g	10 g	8 g	5 g	125 mg	40 mg
- Ham	90	8 g	12 g	4 g	2.5 g	112 mg	35 mg
Dish2							
- Raw carrots	5	1 g	0 g	0 g	0 g	12 mg	5 mg
Total for Meal	405	68 g	42 g	19 g	9 g	307 mg	110 mg
Total for the Day							

Table 3: Vitamin and Minerals for each ingredient per dish

Ingredients	Vitamin and Minerals
Bread	Vit B Vit C Vit D
Tomato sauce	None
Pineapple	Vit B Vit D
Cheese	None
Ham	None
Raw carrots	Vit C Iron Vit D