

Lesson Plan

TEACHER COPY

FEEDING A FAMILY

Planning a healthy menu on a budget

CURRICULUM EXPECTATIONS

Use decision-making and goal-setting skills to promote healthy eating. Analyze the food needs of individuals of different ages. Demonstrate creativity in planning, preparing and serving a meal that meets the needs and budget of a particular family.

OBJECTIVES:

Students will:

- A. Plan a dinner menu for a family in which one member has a special dietary concern.
- B. Analyze the menu based on the requirements for the selected family ensuring that it:
 - Provides at least 30 - 40% of recommended daily food energy
 - Meets the Daily DRI requirements for the family (consistent with the portion of energy provided)
 - Includes all food groups
- B. Complete a grocery list of items, including the quantities needed for the dinner
- C. Demonstrate that they can purchase needed food items within a budget.

RESOURCES:

Print Materials:

- Eating Well with Canada's Food Guide¹
- Cookbooks for recipes
- Newspapers/flyers for ads about grocery items
- Student Handouts



Software:

- FoodFocus software for nutrition education



PROCEDURES/ACTIVITIES:

Students should work in groups to complete this assignment. Select an appropriate dollar amount for students to use in developing the menus. One suggestion is to have half the groups work on a budget comparable to half the cost of a fast food meal (perhaps \$5 per person) and the other groups work with a cost limit which is half of that (perhaps \$2.50 per person).

Warm-up

Emphasize the importance of good diets and staying within a budget. You may want to:

- see if students know how much money is spent on eating out in a week and how much of a family's income is spent on food per week.

- ask them to think about a dinner menu and give you an example of foods from different food groups which would be part of a meal. Build a sample menu together.
- alert them to the fact that individuals within families may have very different needs and health concerns. Ask them to give you some examples.

A. Planning the Menu

1. Students will be required to identify the family for whom they are creating a menu and record this on the assignment sheet. It could be their own family or an imaginary family. They should list at least one special challenge/health concern confronting the family (vegetarian, milk allergy, heart disease, pregnancy, low sodium, etc).
2. Students must do some research into the special health concern and be able to explain how this influenced the food choices they make.
3. Students will choose recipes and begin to develop a menu. Have copies of Eating Well with Canada's Food Guide to help them in identifying food groups and providing examples.

B. Analysis

4. In order to determine the DRIs required for their family, they must enter the information about their family into the FoodFocus program. Click on **PEOPLE** in the menu line and enter the appropriate information about each individual in the family.
5. After the menu is complete, students will enter the items into a food list in FoodFocus using **FOOD by TYPE** and **by Search** on the menu line.
6. To find out if the menu meets DRIs for the family, students must click on **ANALYSIS** on the menu line and read the results. A successful meal plan is defined as one in which: the food energy is over 40%, all the food groups are represented and, when the **nutrient balance** display option is selected, all nutrients are within recommended guidelines. When this is achieved, students can proceed to the next step. If the food list has not met those requirements, students must modify the list until they are successful.
7. Food lists should be saved.

C. Grocery List

1. Students are now ready to develop a complete list of items needed for their menus. A grocery list sheet is provided (student handout #2). For the purpose of this exercise, students should assume that spices and basic baking essentials such as baking soda, baking powder and vanilla do not need to be purchased. If the specific food selected by a student is not found, a similar or generic food should be selected.

D. Budgeting

1. Several methods are possible to help students with budgeting:
 - Provide newspaper ads or flyers (or have students bring them in to class) for students to consult for prices.
 - Students make a trip to the grocery store to check prices.
 - Use the cost data already available in FoodFocus. As food items are entered into FoodFocus, the cost of the complete meal will automatically appear on the main screen. You can easily access the

cost of individual items. If the costs in the FoodFocus database are reasonably accurate for your community, these values can be used. If it is important to update FoodFocus with more representative cost, students can easily edit the information. Refer to FoodFocus manual (Chapter 9) for further instruction. FoodFocus Sorting capabilities can be used to find inexpensive sources of nutrients or inexpensive foods within selected food groups.

2. Beside each item on their grocery list (student handout #2), students are to enter the food name, quantity needed and menu portion cost. If students are using the cost of the item as it comes off the grocery shelf, that price should be recorded (Whole Product Cost) and the cost of the portion amount required for the meal should be calculated. (i.e. their recipe calls for tomato sauce but they only need 10 oz. of a 19 oz. can.). However, if students are relying on FoodFocus database food prices, you may wish to consider whether the Cost Detail printout available under the File|Print|Cost Detail menu item can be used as a replacement for the students completing cost calculations in handout #2.

WRAP-UP/HOMEWORK:

1. Students should complete all assignment sheets. Printouts should include the food list with cost of foods, DRI requirements for the family, and the analysis by scientific units, the graph of Daily DRIs, and the analysis by nutrient balance.
2. Each group will do a presentation to the class to display their menu, show how they achieved the objective, giving explanations for their choices, and discuss the specific challenges of meeting those objectives.

EXTENSION/ALTERNATIVE ACTIVITIES:

- Students could prepare and serve the meal that they planned for this assignment.
- Students could compare the cost and nutrition content of meals eaten at home to fast food.
- Menus and some recipes from the assignments could be compiled into a pamphlet with the printouts of the nutrients.
- Preparation of a dinner restaurant menu listing meals selected by students, including beverages and desserts (if applicable) priced at the actual costs of the raw materials.



REFERENCES:

1. Health Canada 2011, Eating Well with Canada's Food Guide; HC Pub.: 4651, Cat.: H164-38/1-2011E-PDF, ISBN: 978-1-100-19255-0 http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/order-commander/eating_well_bien_manger-eng.php accessed 2012-01-16


B. Nutrient Analysis

Now you are ready to use the FoodFocus software.






TO ENTER DATA ABOUT YOUR FAMILY

- Click on **PEOPLE** on the menu line. 
- Enter the information about each member of your family using the Add to List button. If there is a pregnant or smoking person in your family, make sure you indicate that as well. Be sure to click on **Saved as Revised Group** in order to save the data you entered.
- When you click on either **VIEW NUTRIENT RECOMMENDATION SUMMARY or DETAILS** in the **PEOPLE** window, you will view the required Daily DRIs for your family.
- Print the DRI report you have selected (Summary or Details). 

TO ENTER YOUR FOOD ITEMS

- Use **FOOD by TYPE** or **by SEARCH** on the menu line. Select foods and quantities and build your food list. If a specific food is not found, a similar or generic food should be selected. 
- Print the FoodFocus food list report

TO ANALYZE YOUR LIST

- Pay attention to the rainbow pictograph for an indication of food groups. To see if you meet the guidelines, check the analysis. 
- Click on **ANALYSIS** and make sure the analysis is set for the right people. 
- If you enable the **Scientific Units** button, you can compare the quantity of nutrients in foods you selected with the Dietary Reference Intakes for your family which you identified. 
- When you select the **% Daily DRI** button, you will see the nutrients in foods you have selected compared to **Dietary Reference Intakes**. 
- When you select the **Nutrient Balance** button, you will see the nutrients in foods you have selected compared to Daily Dietary Reference Intakes **adjusted by a fraction of the daily energy in the foods**. That is, the food energy is scaled to 100% and other nutrient amounts are adjusted similarly as if you consumed, more or less, of the foods in your food list until you reached 100% of your daily energy recommendation. 

All bars in the **ANALYSIS** window will be green if the foods you selected are consistent with the adjusted Daily DRIs. (In reality you don't have to meet nutrient guidelines every meal or even every day but for the purpose of this assignment, you should ensure that all nutrients are within recommended ranges.)

Note: Your teacher will have advised you if you should use FoodFocus for cost calculations or if you should use food costs from your own survey of food prices. If you are using FoodFocus costs, check the costs in FoodFocus as foods are entered.

- Print the **ANALYSIS** window with the **Nutrient Balance** option selected.



C. Grocery List: Prepare a grocery list in Student Handout #2

D. Cost Analysis:

Follow your teacher's direction to determine the food costs for Handout #2 either from newspaper ads and flyers (although many economical (low profit) foods will not be promoted in advertising) or from a visit a grocery store or use cost data in FoodFocus. If you use FoodFocus data, you can also edit the FoodFocus data so it reflects your current, local prices if required and you can print the **Cost Details** report which simplifies the cost calculations.

Complete the following:

1. Total dollar amount allowed for your family _____

Total amount spent _____

2. Describe the challenges and explain your choices for:

a. Dealing with the health concern in your family

b. Meeting healthy guidelines

c. Managing within the budget

Hand in the complete assignment with the FoodFocus printouts as requested.

Table 1. Grocery List FEEDING a FAMILY

Student Handout #2

FOOD ITEM	QTY NEEDED	WHOLE PRODUCT COST	MENU PORTION COST
GRAINS			
FRUITS & JUICES			
VEGETABLES, SALADS			
MILK PRODUCTS example: skim milk	250 ml	\$2.49/2L	\$0.31
MEATS & ALTERNATIVES			
COMBINATION FOODS			
BEVERAGES			
SNACKS, SWEETS & DESSERTS			
FATS & OILS			
TOTAL			