



INTERMEDIATE/MIDDLE SCHOOL

NUTRITION TRACK

Teacher Guide

REQUIRED SOFTWARE

- ◆ MICROSOFT EXCEL 97
- ◆ MICROSOFT WORD 97
- ◆ MICROSOFT ENCARTA 97 ENCYCLOPEDIA

OPTIONAL SOFTWARE

- ◆ INTERNET EXPLORER
- ◆ MICROSOFT WORKS
- ◆ MICROSOFT POWERPOINT

SUMMARY

In this lesson, students will learn about the importance of a healthy diet based on the USDA guidelines outlined in the food pyramid. Students will be required to keep a food diary. They will then create various charts to analyze and compare their diets to the USDA recommended allowance for each food group.

OBJECTIVES

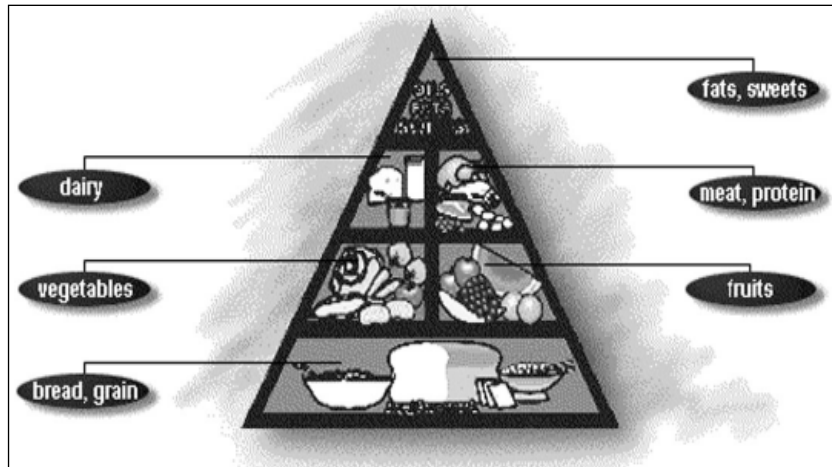
- ◆ To make students aware of foods that are important for a nutritious and healthy diet
- ◆ To gather, record, and chart data for comparative purposes
- ◆ To critically interpret information that is graphically displayed

PREREQUISITE SKILLS

- ◆ Basic knowledge of creating worksheets in *Microsoft® Excel* including skills such as formatting cells; calculating averages; and creating and modifying charts
- ◆ Basic knowledge of *Microsoft® Word* including skills such as formatting and editing text; understands how to import charts from *Microsoft® Excel*

TIME ALLOTTED

Approximately 2 weeks



Food pyramid downloaded from the Internet

HOW TO BEGIN

Introduce students to this lesson by discussing the importance of a balanced diet. Explain that by eating a well-balanced diet, as suggested by the "food pyramid" (above), people get most of the vitamins and nutrients their bodies need.

Use *Internet Explorer* to access the pyramid on the U.S. Department of Agriculture Web site.

Explain that the base of the

pyramid represents that food group which should be consumed in the greatest quantity, and the top of the pyramid, the food group which should be consumed sparingly. Explain to students that they will learn how their diet compares with the pyramid by keeping a diet log for one week.

Recommended Web Site

- ◆ Department of Agriculture
<http://www.nal.usda.gov>

Extensions

- For a more scientific study of vitamins and nutrients, suggest that students look up "Nutrition" in *Encarta 97* and then research Essential Nutrients. The Personal Nutrition Interactivity area allows for a personal analysis of one's diet based on age, gender and activity level.
- Have students create a slide presentation in *Microsoft PowerPoint* which shows their favorite foods and the nutrition those foods provide. Or have them create a brochure in *Publisher 97* recommending foods that coincide with those suggested in the food pyramid.

Student Activity

DESCRIPTION

In this activity, you will keep a record of what you eat over a five-day period, and then compare your diet with the United States Department of Agriculture's recommended daily diet.

STEP 1

Create A Spreadsheet

SOFTWARE: Microsoft Excel or Microsoft Works

WHAT TO DO: Open up a new worksheet in *Microsoft Excel* (Note: *Microsoft Works* can also be used for this project). In column A, starting in row 2 (cell A2) list the six basic food groups according to the food pyramid. Use *Internet Explorer* to access the food pyramid on the Department of Agriculture's Web.

In cell B1 type Day 1, in cell C1 type Day 2. Click the fill handle in the lower right corner of the cell (the pointer changes to a black cross) and drag to highlight through cell F1. In cell G1, type the heading "5-Day Avg" (5-Day Average) and in cell H1, type "Recommended Servings." Highlight columns A-H. Click on the Format menu and choose Column, then choose Autofit Selection to fit headings into each cell. To rotate text, highlight B1:H1. From the Format menu choose Cells, then click the Alignment tab and in Degrees, type 45.

In column H beginning in cell H2, record the minimum number of servings for each food group that the USDA recommends.

TIP! Within your worksheet, you

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	5-DAY AVG	RECOMMENDED SERVINGS	
2	GRAINS	Breads, Cereal, Pasta Number of Servings: 6					5	6
3	VEGETABLES	4	3	3	3	3	3	
4	FRUIT	5	3	3	3	3	3	
5	DAIRY	3	3	3	3	3	3	
6	MEATS/BEANS	2	1	4	3	4	4	
7	FATS/SWEETS	1	3	1	4	2	2	

Example 1: Microsoft Excel nutrition worksheet with cell comments

can add a comment (as above) to show the various foods in each food group. First, click a food group cell, for example "Grains." Then, choose Comment from the Insert menu. A yellow box will appear where you can now type in the various foods that are part of the Grains food group such as bread, cereal, and pasta (see Example 1). (You might also want to type in the recommended daily servings.) Now, if someone else is using your worksheet and wants to find out more information about each food group, all they need to do is move the cursor over the particular cell they are interested in for some "at-a-glance" information.

Recommended Web Site

- ◆ Department of Agriculture
<http://www.nal.usda.gov>

STEP 2

Keep a Diet Record

SOFTWARE: Microsoft Word or Microsoft Works, Microsoft Excel

WHAT TO DO: Using *Word* or the word processor in *Microsoft Works*, create a document in

FOOD PYRAMID GUIDELINES

(Estimated one serving equivalents)

Grains:

- ◆ 1 slice of bread;
- ◆ 1 ounce of cereal;
- ◆ 1/2 cup of cooked cereal, rice, or pasta

Vegetables:

- ◆ 1 cup of leafy vegetables (measured raw)
- ◆ 1/2 cup other vegetables (cooked or raw)
- ◆ 3/4 cup of vegetable juice

Fruit:

- ◆ 1 medium apple, banana, or orange
- ◆ 1/2 cup cooked, chopped or canned fruit
- ◆ 3/4 cup of fruit juice

Meats/Beans:

- ◆ 2-3 ounces of lean meat, poultry, or fish
- ◆ 1-1 1/2 cups of cooked dry beans
- ◆ 2 eggs
- ◆ 4-6 tablespoons of peanut butter

Dairy:

- ◆ 1 cup of milk /yogurt
- ◆ 1 1/2-2 ounces of cheese

Fats/Sweets:

- ◆ Use sparingly

which you can keep a daily record of everything you eat over a five-day period. Then using the Food Pyramid Guidelines figure out how many servings of each of the six food groups you had each day. For example, estimated servings size for a tuna salad sandwich is 2 bread servings, 1 meat serving, and 1 fat serving. Now, record in your *Microsoft Excel* worksheet the number of servings of each food group you had for each of the five days.

STEP 3

Compare Your Diet

SOFTWARE: Microsoft Excel

WHAT TO DO: Now you can calculate how your diet compares, on average, to the USDA's recommended diet over a five-day period.

To calculate the average number of servings of the first food group for the five days type =average(B2:F2) in cell G2. Highlight G2:G7 and choose Fill from the Edit menu, then choose Down to calculate the average number of servings for the remaining 5 food groups.

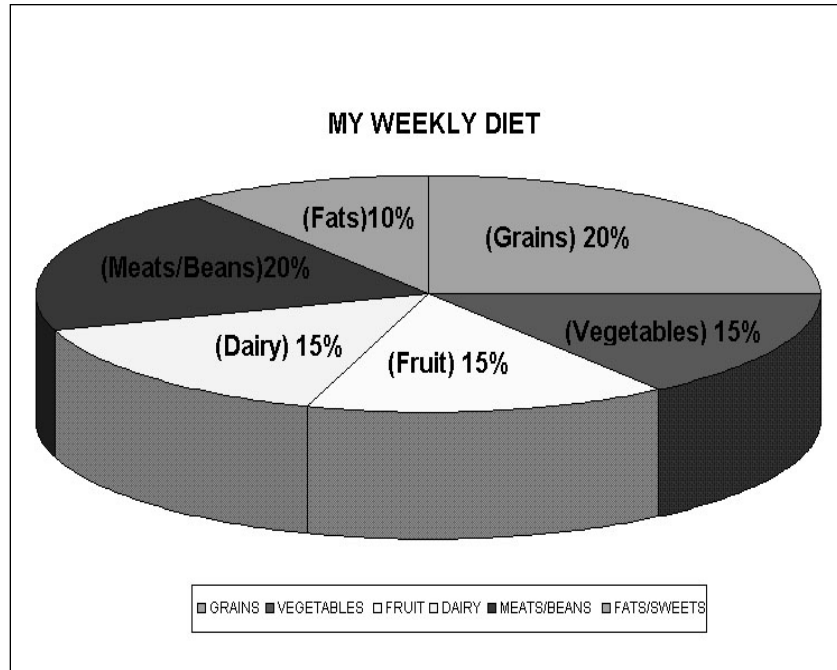
STEP 4

Chart the Results

SOFTWARE: Microsoft Excel

WHAT TO DO: Create a pie chart showing the average number of servings for each food group in your diet over a five-day period. Highlight B2:F7, select Chart from the Insert menu and step through the Chart Wizard to create a pie chart (see Example 2).

Next, create a column chart (see Example 3) that compares your average number of servings to the minimum number of



Example 2: Pie chart created in *Microsoft Excel* using the Chart Wizard

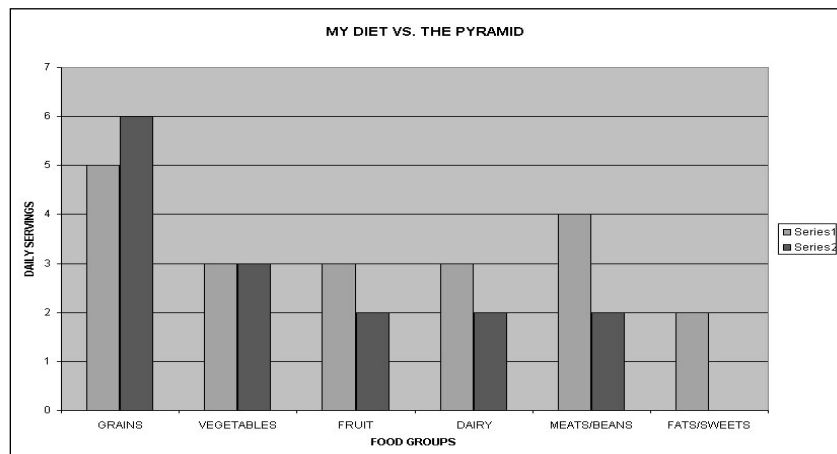
servings the pyramid recommends. First, highlight G2:H7. Then select Chart from the Insert menu and step through the Chart Wizard to create a column chart. Be sure to put a title on your chart and label the X and Y axes and the legend.

WHAT TO DO: Use *Word* to write a brief report describing what you learned about your diet. Insert charts created in *Microsoft Excel* to visually represent how your diet compares to the USDA recommended diet. Explain in detail any steps you might take to improve your diet. Which foods should be eaten in larger quantities? Smaller quantities? Which foods might be eaten in place of high-fat, sweet snacks? ■

STEP 5

Interpret the Results

SOFTWARE: Microsoft Word



Example 3: Column chart created in *Microsoft Excel* using the Chart Wizard

