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**productivity in the
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Nutrition Track

Subjects: Science, Language Arts

Required Software: Microsoft® Excel, Microsoft® Word, Microsoft® Encarta® Encyclopedia

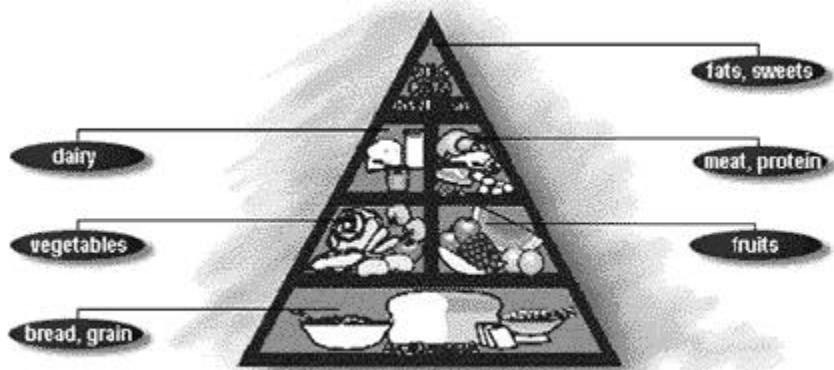
Optional Software: Microsoft® Internet Explorer, Microsoft® Works, Microsoft® PowerPoint®

▶ Teaching Guide
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Teaching Guide

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.



Food pyramid downloaded from the Internet

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, and 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 and basic knowledge of Microsoft® Word™ including skills such as formatting and editing text; understands how to import charts from Microsoft® Excel™.

Time Alloted

Approximately 2 weeks

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](#)

Extension Activities

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 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).

The screenshot shows a Microsoft Excel worksheet titled "NUTRITION FOLDER - MARCH 28". The worksheet has columns labeled A through H and rows 1 through 8. The data is as follows:

	A	B	C	D	E	F	G	H
1		DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	5-DAY AVG	RECOMMENDED SERVINGS
2	GRAINS				8	5	5	6
3	VEGETABLES				4	3	3	3
4	FRUIT				5	3	3	2
5	DAIRY				3	3	3	2
6	MEATS/BEANS	2	1	4	3	4	4	2
7	FATS/SWEETS	1	3	1	4	2	2	0

A comment box is visible over the "GRAINS" cell (B2), containing the text: "Breads, Cereal, Pasta" and "Number of Servings: 6".

Example 1: Microsoft Excel nutrition worksheet with cell comments

(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 Sites

- [Department of Agriculture](#)

STEP 2 Keeping 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 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

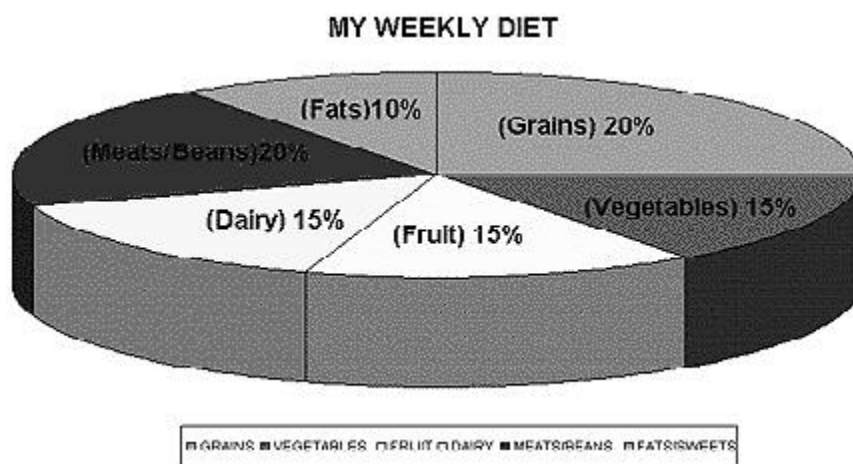
WHAT TO DO: Now you can calculate how your diet compares, on average, to the USDA's recommended diet over a five-day period.

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

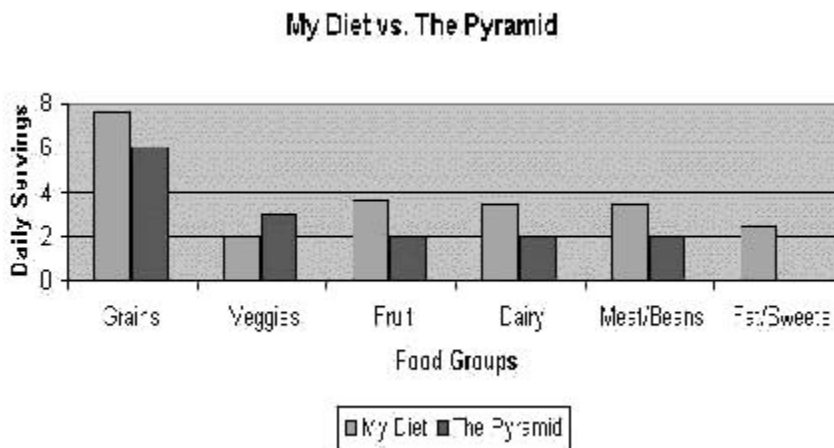
SOFTWARE: Microsoft Excel

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).



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

Next, create a column chart (see Example 3) that compares your average number of servings to the minimum number of servings the pyramid recommends. First, highlight G2:H7.



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

Wizard

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.

STEP 5 *Interpret the Results***SOFTWARE: Microsoft Word**

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?



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