



Title: Brown Bag Challenge

Grades: High School

Subject: Health

Time: 40 minutes

Standards: Students will ...

Health Standard 6: Understand essential concepts about nutrition and diet.

- **Benchmark # 1:** Understand how nutrient and energy needs vary in relation to gender, activity level, and stage of life cycle.

Health Standard 7: Know how to maintain and promote personal health.

- **Benchmark # 1:** Know how personal behaviors relate to health and well-being and how these behaviors can be modified if necessary to promote achievement of health goals throughout life (e.g., following a personal nutrition plan to reduce the risk of disease, periodically self-assessing physical fitness).
- **Benchmark # 4:** Understand the impact of personal health behaviors on the functioning of body systems.

Objectives: Students will be able to ...

- Read and evaluate nutrition labels on food packages.
- Understand how personal behaviors relate to health and well-being.
- Understand how personal behaviors can be modified if necessary to promote achievement of health goals throughout life.
- Understand that following a personal nutrition plan can reduce the risk of disease.

Materials:

- Garden Journal
- Pencil
- Multiple copies of the same Nutrition labels (one set for teach team)
- Paper bags (one for each team)

Overview:

The nutrition panel shows how much total fat and saturated fat is in each serving of a particular food. Some fat is necessary in the diet but that most Americans eat too much fat. Total fats supply energy and essential fatty acid and help in absorption in vitamins A, D, and K. The average teen girl needs 55-78 grams of fat a day. The average teen boy needs 61-95 grams of fat a day. When choosing fats, unsaturated fats are your best bet. These include monounsaturated and polyunsaturated fats. One type of polyunsaturated fat, omega-3 fatty acids can benefit your heart. Here are some examples of unsaturated fats.

- Monounsaturated fat: Olive oil, peanut oil, canola oil, avocados, nuts and seeds
- Polyunsaturated fat: Vegetable oils (such as safflower, corn, sunflower, soy and cottonseed oils), nuts and seeds
- Omega-3 fatty acids: Fatty, cold-water fish (such as salmon, mackerel and herring), flaxseeds, flax oil and walnuts
- Saturated and trans fats (trans-fatty acids) are less healthy kinds of fats. They can increase your risk of heart disease. Here are some examples of saturated and trans fats.
- Trans fat: Partially hydrogenated vegetable oils, commercial baked goods (such as crackers, cookies and cakes), fried foods (such as doughnuts and french fries), shortening and margarine

Eco-Fact: Experts agree that using healthy fats, such as canola oil or olive oil, is better than using the artery-clogging trans or saturated fats. However, all fats are loaded with calories and need to be limited in our diet.



Procedures:

1. Collect nutrition labels from about seven or eight food items. Class will be working in teams of 3 or 4 students. Make a set of copies of labels for each team. Keep one label from each set out of bag to use for the first activity. Put remaining labels into a paper bag.
2. Tell class that they are going to practice locating the fat content of food by reading nutrition labels on various foods.
3. Divide class into teams of three or four students. Pass out copies of the same food nutrition label to each team. Instruct the students to write in their Garden Journals the name of the food from the label.
4. Explain that % Daily Value (%DV) shows how much of a nutrient in one serving is your day's overall amount in your diet. For example, if one serving of a food shows a has % Daily Value of 45 % total fat that means you have nearly eaten half of your daily intake of fat with one serving of that food. If you eat a food that is high in fat, you can balance your day requirement by eating lower fat foods for the remainder of the day. Explain the different types of fat and the need to have some fat in your diet daily.
5. Have teams locate on the nutrition label the total fat in grams and the % Daily Value (%DV) of the food. Record it in their Garden Journal.
6. Next have teams locate on the nutrition label the saturated fat in grams and the % Daily Value (%DV) of the food. Record it in their Garden Journal.
7. Ask teams to figure out how much more fat they should plan on consuming if they have eaten the food from that label.

Evaluating Fat on a Nutrition Label:

1. Distribute a bag of labels to each team. Tell teams to read the fat content on the provided nutrition labels. Arrange them on the table from lowest to highest in fat content.
2. Instruct teams to choose their daily intake of fat by reading the nutrition label. Remind teams that their %DV of total fat for all their choices must add up to about 100%.
3. Once teams have made their final choices have students record choices in their Garden Journals. A chart like the one below can be copied into Garden Journals to organize data.

Evaluating Fat on a Nutrition Label Chart

Name of Food	% DV	Total of % DV

Wrap Up Discussion:

1. Were you surprised at how many foods were needed to reach 100% of your daily value of fats?
2. What types of foods ended to be high in fat content?

Adaptations:

Instead of using garden journals to record data, make copies of chart similar to the one provided above.

Extensions:

See other nutrition lessons on this site.