



## Understanding the Plants we eat

### Lesson 2: Health Benefits of eating Fruits and Vegetables

**Annotation:** Students will quickly learn the nutrient content, the health benefits and medicinal value of edible plants by studying current literature and sampling fresh fruits and vegetables.

#### **Georgia Standard:**

**SCSh6.** *Students will communicate scientific investigations and information clearly*

c. Use data as evidence to support scientific arguments and claims in written or oral presentations

d. Participate in group discussions of scientific investigations and current scientific issues.

#### **Internet resources:**

##### **1. National Cancer Institute: Savor the spectrum Glossary**

**Website:** <http://www.5aday.gov/glossary.shtml>:

**Annotation:** National Cancer Institute website gives definitions of important terms that the students might uncover while reading a current article on the benefits of eating fruits and vegetables.

#### **Materials:**

*Current article:*

Ohr, Linda Milo. "Nutraceuticals & Functional Foods: Powerful Produce." *Food Technology* (58) 5:65-68.

**Annotation:** Article discusses some of the nutritional benefits of eating ten fruits and vegetables. Examples include: apples, broccoli, blueberries, cherries, grapefruit. The article is very useful and discusses some of the health benefits for coronary health, bone health, and prostate cancer.

*Fruits:*

Grapefruit juice

Blueberries

Strawberries

Apples

(Any fruits or vegetables that are highlighted in the article)

#### **Safety Considerations:**

Do not assume that the fruit is clean when you get it from the store. Make sure that all samples are washed thoroughly with warm water before consumption.

**Total duration:**

60 minutes

Informal survey (10-15 minutes)

Reading and writing summaries (10-15 minutes)

Presenting (20-30 minutes)

Discussion (15 minutes)

**Procedures****Step 1: Survey**

Take an informal survey of the class asking the suggested questions in the survey about their diet and the plants that they consume. This survey is done to get the students to think about the plants that they eat and their dietary importance.

*Note:* This can be done individually or as a class discussion.

**Step 2: Literature reading**

The current article has ten fruits and vegetables highlighted. Students in groups of 2 or 3 will be assigned one food item out of the article. Each group must read the information on their item and write a short summary. The list of definitions of key terms (provided on the National Cancer Institute website) should be accessible for students while they are reading the article to help them gain a better understanding.

**Step 3: Presentations and Sample intake**

The students will present the information in a summary format to the class.

Samples of fruit vegetables will be passed out and given to the students to snack on.

**Assessment****Step 4:**

Students will then have a discussion on the reasons they think that plants have such good health benefits. They should come up with their own conclusions and be geared more towards the nutrients (N, P, Mg, etc) that edible plants need to grow. They should also think on the fertilizers that are used on soil and how plant make there own food.

**Extension:**

Students have now been exposed to common diseases in woman, man and age related disorders. This activity can now lead into learning about the human body, systems, and disease.

This activity can be expanded into a lengthier presentation (such as power point or using more references) with more time to prepare.

## Understanding the Plants we eat: Lesson 2

# Survey

1. How often would you say that you eat fruits and vegetables?
  - A. More than once a day
  - B. Once a day
  - C. Twice a week
  - D. Less than twice a week
  
2. What is your favorite fruit or vegetable? Why?
  
3. What is your least favorite fruit or vegetable? Why?
  
4. Do you think that fruits and vegetables are:
  - A. Extremely Healthy
  - B. Somewhat Healthy
  - C. Have no nutritional value at all
  
5. Most of the time when you eat fruits or vegetables are they :
  - A. Fresh
  - B. Canned
  
6. If you found out that eating a certain fruit or vegetable on a regular basis would help you fight off a potential deadly disease, would you incorporate more of it in your diet even if you did not like it very much.
  - A. Yes
  - B. No