

Jigsaw Lesson Plan 1 – Vitamins and Minerals

Adapted from a lesson by Dawn Arndt

ED 381-Fall 2001 (UWSP – Dr. Leslie Wilson, Professor)

Unit: Nutrition

Grade: 10-12 grade, Class Unit: Advanced Foods

Number of Students: 24-25

Length of Lesson: 50 minutes, 1 class period

Aim: The students will be able to identify and understand types and the importance of vitamins and minerals.

Goal: The students will be able to identify the functions and sources of different vitamins and minerals.



Cognitive Objectives:

- ~The students will be able to list the functions of 5 vitamins and 5 minerals.
- ~The students will be able to identify the sources of those vitamins and minerals.
- ~The students will list at least one symptom of a deficiency for each vitamin and mineral.
- ~The students will list at least one symptom of a toxicity for each vitamin and mineral.
- ~The students will learn to devise and organize informational summaries based on their investigations and research of assigned vitamins and minerals.

Affective Objectives:

- ~The students will write a personal reflection on how they would change their diet to include sufficient amounts of essential vitamins and minerals.
- ~The students will learn to work in collaborative groups.

Background Information:

The Jigsaw Configuration and Method: The Jigsaw Model is a social model of learning and requires students to be pre-assigned to both expert (teaching) groups and instructional (learning) groups.

Subject areas, or specified content information, are divided so that instructional collaborative groups can be formed. For this exercise, the class is divided into two assigned sections -- *expert* groups and *instructional* groups. In the expert group students read, discuss, and develop assigned materials or concepts into a teaching presentation for peers. After the preparation period, a student (or two if the numbers are odd) from each *expert* group is assigned to teach in an *instructional* group. In these instructional groups each expert teaches his or her portion to other members.

Expert groupings should be based on the number of students divided by number of concepts to be taught. This peer teaching exercise needs to occur within a designated time period. Expert groups (the teachers) usually consist of 3-7 members. Configurations for instructional groups are usually 3-6 members with 4 or 5 participants being ideal.

If there are an uneven number of students, there can be student experts can be paired and assigned to the same instructional group, thus sharing the teaching tasks. Try to keep in mind that groupings for the instructional group should not exceed 6 members.

Specific Procedures:

For this lesson each *expert* group is assigned a mineral and a vitamin to research. Specifically, students are to research the vitamins and minerals function in human nutrition, primary sources in the average diet, as well as and symptoms of both deficiency and toxicity. This information is compiled over two class periods prior to the instructional presentations.

The class period before the presentation, the expert group decides on both specific content to be presented and teaching strategies to be used. Each person has 10 minutes to present his or her expert information to the instructional.

The day of the presentations, students meet in their pre-assigned instructional groups to exchange information. Each student expert offers members of the instructional group his/her information and participants are asked take notes on the vitamins and minerals in a table format.

Discussion:

The class period after the jigsaw exchange of information, students will discuss exchanged materials and collected information about each vitamin and mineral and then this material will be reviewed for accuracy. Students will also be asked to reflect on the jigsaw process.

Questions that could be asked might be:

- What did you like about this activity? What did you dislike about this activity?
- How did you feel about teaching your peers about the vitamin or mineral you were an expert on?
- How did you learn the most information about the minerals and vitamins?
- What would you do differently next time? What would you do the same?

Assignment:

The students will be asked to summarize the vitamin and mineral they researched. Then, they will write personal reflections on how they might change their diets to include sufficient amounts of the presented vitamins and minerals. This portion of the exercise will be collected due in 3 days.