

Sample Backwards-Designed Unit

Most of this unit is from *Understanding by Design Professional Development Workbook* by Grant Wiggins & Jay McTighe (ASCD, 2004); some of the Big Ideas come from *Harvard Men's Health Watch*, July 2009.

Unit Title: You Are What You Eat – 5th Grade Health and Nutrition

Teacher and section: Bob James, Montgomery Knolls Public Schools

Length and timing of unit: 3 weeks

1. State/provincial standards:

6 – Students will understand essential concepts about nutrition and diet.

6a – Students will use an understanding of nutrition to plan appropriate diets for themselves and others.

6c – Students will understand their own individual eating patterns and ways these patterns may be improved.

2. Factual knowledge – Students will know...

- Key terms: protein, fat, calorie, carbohydrate, cholesterol.
- Types of foods in each food group and their nutritional values.
- The USDA Food Pyramid/Canada's Food Guide guidelines.
- Variables influencing nutritional needs.
- Specific health problems caused by poor nutrition.

3. Skills – Students will be able to...

- Read and interpret nutrition information on food labels.
- Analyze diets for nutritional value.
- Plan balanced diets for themselves and others.

4. Big Ideas/Enduring Understandings – Students will understand that...

- What you eat affects your appearance, your energy, how you feel – and above all, your health.
- Many North Americans eat in ways that contribute to obesity, diabetes, high blood pressure, heart attacks, strokes, and cancer. The main culprits: eating too much, choosing the wrong foods, and not getting enough exercise.
- Scientists know the diet that's best for good health; some details have changed over the years, but there is agreement on the basics. The U.S. Department of Agriculture (USDA) Food Pyramid and Canada's Food Guide summarize them.
- Dietary requirements vary for individuals based on age, gender, activity level, weight, and overall health.
- Healthful living requires an individual to act on available information about good nutrition even if it means breaking comfortable habits.
- Good eating is not a punishment. People who get into a good pattern of healthful eating can still enjoy treats.

5. Essential Questions:

- What is healthful eating?
- How does what you eat affect your health?
- Are *you* a healthful eater? How would you know?
- How could a healthy diet for one person be unhealthy for another?
- Why are there so many health problems in the United States and Canada caused by poor eating despite all the available information?

6. Assessments: Quizzes, tests, and a performance task to assess student mastery formatively and summatively, including an exemplar of proficient student work and a scoring guide for the performance task.

Quiz: Food groups and USDA Food Pyramid/Canada's Food Guide.

Writing prompt: Describe two health problems that could arise as a result of poor nutrition and explain how they could be avoided.

Skill check: Interpret nutrition information on food labels.

Performance Task:

The camp director of an outdoor education centre has asked you to propose a nutritionally balanced menu for our three-day trip to the centre later this year. Using the USDA Food Pyramid/Canada's Food Guide guidelines and the nutrition facts on food labels, design a plan for three days, including the three main meals and three snacks (morning, afternoon, and campfire). Your goal is a tasty and nutritionally balanced menu. Include at least one modification for a specific dietary condition (e.g., diabetic or vegetarian) or religious consideration. In addition to your menu, prepare a letter to the camp director explaining how your menu meets the USDA/Health Canada nutritional guidelines. Include a chart showing a breakdown of the fat, protein, carbohydrates, vitamins, minerals, and calories.

Criteria for evaluating performance task:

- Menu meets USDA/Health Canada guidelines.
- Nutritional values chart is accurate and complete.
- Menu includes at least one dietary modification.
- Effective explanation of nutritional value and taste appeal of proposed menu.
- Proper letter form
- Correct spelling and grammar conventions.

Student self-assessment and reflection:

- Self-assess the brochure
- Self-assess the camp menu
- Reflect: To what extent are you a healthy eater at the end of the unit (compared to the beginning)?

7. Lesson-by-lesson instructional plan: Lectures, mini-lessons, readalouds, independent reading, films, website exploration, discussions, dialogues, debates, partner or small-group work, student presentations, reports, journals, reflections, in-class assessments, written reports, essays, research, and homework.

(Note that these are very brief summaries of what would be much more detailed plans for each lesson. Key vocabulary terms are introduced as needed in the various learning activities and performance task.)

Lesson 1:

- Hook students' interest with an entry question (Can food cause zits?) to get them considering the effects of nutrition in their lives.
- Introduce the essential questions and discuss the culminating unit performance task.
- Have students begin a food diary to record their daily eating and drinking patterns (this continues through the unit).

Lesson 2:

- Present concept attainment lesson on food groups, then categorize foods.
- Have students read and discuss the nutrition brochure from the USDA/Health Canada.

Lesson 3:

- Present lesson on the Food Pyramid/Food Guide and identify foods in each group.
- Read and discuss relevant selections from the health textbook.
- Provide illustrated pamphlet for lower-level readers.

Lesson 4:

- Give quiz on the food groups and Food Pyramid/Food Guide (matching format).
- Present and discuss the video, "Nutrition and You."
- For homework, have students design an illustrated brochure to teach younger students about the importance of good nutrition and healthy living.

Lesson 5:

- Assess and give feedback on the brochures.
- Allow students to self- and peer-assess the brochures using a list of criteria.

Lesson 6:

- Working in cooperative groups, have students analyze an unbalanced diet for a hypothetical family and make recommendations for improved nutrition.
- Observe and coach groups as they work.
- Collect and review diet analyses to look for misunderstandings that need further instruction.

Lesson 7:

- Conduct a group review and give feedback regarding the diet analyses. Allow revisions.

Lesson 8:

- Have students listen to and question guest speaker (a nutritionist from a local hospital) about health problems caused by poor nutrition.

Lesson 9:

- Students respond to a written prompt: Describe two health problems that could arise as a result of poor nutrition and explain what changes in eating could help to avoid them (these are collected and graded by the teacher).
- Have students conduct research on health problems resulting from poor eating.
- Provide students with options for how they share the findings.

Lesson 10:

- Model how to interpret food information for nutritional values.
- Have students practice interpreting food labels.

Lesson 11:

- Review the camp menu rubric so that students understand the criteria.
- Have them work independently to develop a three-day camp menu.

Lesson 12:

- Observe and coach students as they work on their menus.

Lesson 13:

- Evaluate and give feedback on the camp menu project.
- Have students self- and peer-assess their projects using the rubric.

Lesson 14:

- Have students review their food diaries to look for changing patterns in their eating. Have they noticed changes? Improvements? Do they notice changes in how they feel or in their appearance?
- Have each student set a personal goal for improved nutrition.

Lesson 15:

- Conclude the unit with student self-evaluation regarding their personal eating habits.
- Have each student develop a personal action plan for their healthful eating goal. These are presented at upcoming student-involved parent conferences.