Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
2007 Volume V: Health and the Human Machine

À Votre Santé: A French-Language Unit on Nutrition

Curriculum Unit 07.05.02
by Crecia C. Swaim

Introduction

What middle school world language teacher *hasn't* taught that stale old café lesson, with its myriad variations on how to politely order a meal of *un steak-frites et un coca, s'il vous plaît* ? And what about the ever-fascinating fruit identification and choral repetition number, always a hit for about five minutes (maybe ten if you use real fruit as models instead of those dented plastic versions). Food units in many textbooks generally serve several purposes: They supply a ready-made, structured opportunity for student-student interaction in terms of asking for and providing information; they tap into the students' universal interest in food as well as their curiosity about basic cultural similarities and differences; and lastly, they provide an arena to practice the concept of gender and gender identification with indefinite articles. In the following unit, I will attempt to breathe some vitality into what can easily become that lesson during which we find ourselves sacrificing creativity for ease and familiarity. Although I understand the appeal of and value in tasks like creating a menu and acting out a restaurant scenario, I find myself (and my students) growing tired of the same ten menu items! By exploring new facets of food and health in this unit, I hope to increase the communicative options available to my students in a restaurant-based unit. And I think that in our present climate of adolescent obesity, fast food, and decreased or non-existent recess time in our schools, it is imperative that we not waste this wonderful opportunity to model, educate, and experiment with health and nutrition for and with our students.

I teach in an arts magnet school in New Haven, Connecticut. It is a public middle school comprised of students from New Haven and its surrounding suburbs who have an interest in the arts. Students bring with them a diverse range of culture, experience, and socioeconomic background. It is a wonderful environment in which teachers strive to collaborate across academic and artistic disciplines to deliver a richer, more meaningful education experience to students.

The following is a French language unit to support the New Haven World Language Curriculum, which has been newly rewritten to emphasize teaching according to cultural and thematic concepts. The final thematic unit in seventh grade revolves around food and health. Seventh graders will have just completed a nutrition unit in their science classes, which will help them to assimilate this information into the French language. This unit can easily be taught in any world language, though I provide key vocabulary and resources in the French language.

By the time this unit is taught, my students will have had one year of introductory French during the sixth grade, where they will have built up their vocabulary base and learned basic conversational skills and linguistic structures. The seventh grade year is broken down into four thematic units: Global awareness, focusing on but certainly not limited to Francophone countries; school and after-school interests and activities; family life; food, fun, and health. Students at my school have French four days a week for fifty-two minutes each class. I am the only French teacher at my school, so I am able to develop a rapport with students during the entire three years they study the language.

My unit focuses on the language concept of conjugating regular -er verbs. The verb *aimer* , to like, will be recycled from the previous unit, and students will examine its conjugation to deduce a conjugation pattern for all regular -er verbs. They will apply that knowledge by conjugating a variety of regular -er verbs. Because middle school students generally have difficulty with conjugating verbs, I am hoping that combining explicit instruction and LOTS of practice *within* the context of making healthful food choices will be the key to demystifying the process for my students. It will also provide students with the opportunity to develop an understanding of the relationship between definite and indefinite articles, as we practice identifying foods, vitamins, and minerals in various situations.

In addition to the concurrence with my district's world language curriculum, I am excited to write and teach a French language unit on nutrition for several reasons. Above all, I am concerned that so many of our students seem to lack a true awareness of nutrition and the necessity of healthy habits for healthy minds and bodies. Also, I have set a professional goal to create more content-based units in my class. Every time I have done so it has provided a much more meaningful, enriching, and engaging educational experience for my students. The timing of this unit in relation to the seventh grade science class nutrition unit will further enhance the experience. Also, I am thrilled to be able to mirror my own personal interest in developing life-long healthy habits in my teaching experience. It will be valuable for me as well as for my students, as we all discover new ways to approach health and nutrition together.

Unit Overview

In this unit I will build on students' prior knowledge of basic food items, taught in sixth grade, by increasing the variety of food items learned. I will teach vocabulary related to meals, including the categories of breakfast, lunch, dinner, snacks, beverages, and desserts, as well as names of common meals and food items. I will canvass students to find out their favorite and most often eaten meals, in order to tailor vocabulary to suit their needs. Students will survey each other to find out the same information through oral practice. They will compile this survey information in a columned graphic organizer, which they will then use as a reference to answer questions about different members of the class; these activities will get students conversing with several different forms of given verbs (i.e. I like, he likes, they like, we all like, does she like, etc.)

Students will consult resources to discover basic nutritional information for many foods. They will choose the foods they research, so that their learning will be more meaningful to them. They will, however, be required to research at least ten fruits and ten vegetables, to broaden their taste horizons and to encourage trying new items. I want them to determine for themselves the virtues and hazards of the foods they eat, so that the information might stick with them long after the unit has been taught, and might cause them to make some different choices along the way. Also, during all the paired and whole class speaking activities using

researched vocabulary, students will get exposed to many food items other than those they researched themselves, so their learning will be layered.

We will classify items by color, as that will help students to recycle vocabulary while using what they know to help build new knowledge. I will introduce the idea of eating by color (manger de couleur) to help convey the nutritional benefits of eating a wide variety of fruits and vegetables.

Then I will teach students the basic components of a healthy diet, and we will discuss the idea of a balanced meal and a balanced diet. I will introduce the definition of a calorie, and discuss the idea of quantity and quality of food in being directly related to the energy a person has and the condition of the body, in terms of weight as well as things like skin and hair condition. Students will then apply their knowledge of nutritional data to compare and contrast items in terms of different dietary elements, like calories, fats, proteins, simple and complex carbohydrates, vitamins, and minerals. The basic function of each element will be introduced, so that students will understand the concept of moderation, that some of these elements are okay or even vital in certain quantities to help our bodies in various ways. We will make comparisons among our charts to get at the differences between high empty calorie and high nutritionally-dense calorie items. Students will categorize vocabulary according to meal, color, calorie, and nutrients. I will have students keep a food log for two weeks and analyze their intake of the above-mentioned categories.

We will then practice combining foods into calorie- and health-conscious meals, considering all the elements of diet we explored above. One way I intend to differentiate for higher-achieving students is to expect them to know and use the details of the nutritional breakdown of more foods more frequently and fluidly than other students. We will look at dietary guidelines from Canada and then France to compare and contrast them to our own and to each other. One possible enrichment activity will be to look at the objectives of the Economic Community of West African States, ECOWAS, (La Communauté Economique Des Etats de l'Afrique de l'Ouest, CEDEO) to show that although not every country currently has dietary guidelines in place, there are different needs that must be addressed in different places. For instance, in largely Francophone western Africa, they are currently discussing the "double burden of malnutrition/le double fardeau de la malnutrition." This addresses the high infant mortality rate due to malnutrition as well as the chronic diseases that affect adults who were raised malnourished. Additionally, there has been a dramatic increase in overnourishment and obesity amongst adults in these countries. It is estimated that the number of obese people living in that region of Africa will double in the next five years (OOAS). The possibility of a link between malnutrition and obesity could also be explored.

We will look at different recipes to determine what is and is not healthful about each recipe. Although we will begin with recipes for foods students are familiar with, we will progress to recipes for traditional French foods as a window into culture. I will choose recipes from different regions of France as a way to introduce more French geography as well as information about the relationship between agricultural conditions and local cuisine.

Numeracy is woven throughout the unit in terms of nutritional counts, serving sizes, recipe measurements, calorie counts, quantity of foods per serving, and comparison among foods of all these pieces as well as comparing and contrasting measurements according to country.

French language health and nutrition documents from France and Canada will be used as primary resources for health information. In particular, Canada's nutritional guidelines can be explored and downloaded at the website for Santé Canada/Health Canada. Click on *Obtenez votre exemplaire* and then *Téléchargez le Guide en PDF.* This website can be used in a myriad of ways, only some of which will be documented in this unit. It is

an invaluable resource, existing in both French and English, for language exploration. French nutritional guidelines can be found on the Programme National Nutrition Santé (PNNS) website.

I like to feature video segments in my units whenever possible, and the following are two examples of what could be used. There is a clip in the film *Keita: L'héritage du griot* in which an urban family in Burkina Faso prepares and eats dinner with a traditional griot guest. They discuss eating pasta as opposed to traditional Burkinabe food, and the griot eats with his hands. It is a great way to discuss different foods for different cultures and agricultures, as well as different dining practices. There are also some clips in François Truffaut's *Argent de Poche* that revolve around children preparing food, notably a) two boys preparing breakfast while their parents sleep in on the weekend, and b) neighbors gathering dinner food to send to a little girl they think was shut in without supper. I showed the seventh grade class this film this year, and they loved those parts. They could be shown to illustrate simple vocabulary or to discuss personal mealtime practices. Additionally, French food product commercials can be ordered from language teacher catalogs or downloaded from web sites like www.youtube.com.

Aimer, Manger, and Regular -ER Verbs

In the sixth grade students learned the question and answer phrases *Tu aimes. . .?* and *J'aime. . .* to ask and tell about likes . In the seventh grade, they practiced using all present tense forms of the verb *aimer.* This unit will recycle that knowledge at the end of the seventh grade year to pave the way for determining and practicing how to conjugate all regular -er verbs.

I will present students with the familiar conjugation of the verb *aimer.* I will ask them to analyze it in terms of similarities and differences among all of its present tense forms, in order to discover a possible pattern and procedure. As they present their findings, we will, as a class, decide if each step makes sense, so that we end up creating one classroom prediction of how to conjugate regular -er verbs. Then I will show them my steps checklist, referred to as a Visual Instruction Plan (VIP), for conjugating regular -er verbs. We will compare and contrast to see if they discovered all the actual steps to the procedure. (See the Education World article listed in the *Resources* section for a more thorough explanation of a VIP, and the appendix for a copy of the one I created).

This skill (the ability to conjugate regular -er verbs) will be applied throughout the unit as students continually use conjugations of degrees of like verb expressions (*aimer, adorer, détester)* as well as these verbs related to food: *manger* (to eat), *cuisiner* (to cook), *préparer* (to prepare). The following verbs will be used in our treatment of the nutritional guidelines and recommendations: *consommer* (to consume), *recommander* (to recommend), *augmenter* , (to increase or augment), *limiter* (to limit), *comparer* (to compare), *égaler* (to equal). We may address the need to chew slowly with the following verbs: *savourer* (to savour or enjoy), *engouffrer* (to gobble up or devour), *mâcher* (to chew), *digérer* (to digest), *aider* (to aid).

Unit Initiation

We will begin by looking at printed color copies of the six-page *Guide alimentaire canadien* while the same images are displayed and navigated online through an LCD projector. Page one has different food group items streaming down different colors of the rainbow. I will point to items students know and ask questions like *Qu'est-ce que c'est?* and *C'est un X ou un Y?* For items students do not know in French, I will say *C'est un X* or *Ce sont des Ys.* I will ask students to repeat vocabulary and I will stress cognate relations. I will model appropriate use of definite and indefinite articles. Next we will look at the page labeled *¿ quoi correspond une portion du Guide alimentaire?* It has pictures and names of different food items that fall within each food group. We will use the same technique listed above, as well as manipulatives in the form of actual items representing the pictures. I will pull the items out of a bag when students need extra support deciding what an item is, or to validate decisions. Then we will flip between this page and the one entitled *Nombre de portions du Guide alimentaire recommandé chaque jour,* to declare the name of each food group and examples of items that fall within that group. We will decide how many servings of each group students in the class should eat (the guidelines are listed under *filles et garçons 9-13* for this class.) I will review using the verb *aimer* in order to ask students if they like individual food items from the guide. Students will answer either *Oui, j'aime X* or *Non, je déteste X* . Then they will each make a list of five items from the guide and ask partners if they like the items. Each student will have a grid in which can be written each of the five items interviewed about, as well as names of students and their responses. After a decided-upon amount of time (which will be determined based on how much time is needed for the previous introduction) students will report findings back to the class, so that they will have used first person singular in their own responses, second person singular in their questions, and third person singular in their report back. I will use the findings to begin sentences using third person plural, and use those questions to challenge higher-level students. For items that all students like, I will ask questions using second person plural, and if I like them also I will use first person plural. I will save the results to compare with a unit closure activity, to see if students change any likes by the end of the unit.

Gender Identification and Nutritional Information

Students will research nutritional information for many different food items. They will use the guide called *Valeur nutritive de quelques aliments usuels* . It can be found at the Santé Canada website. Type the guide's title into the *recherche* box to locate it easily. The specific web address is also listed in the resources section of this unit. It is a fifty-six page guide. For this lesson, I will take my class to our technology center. Students will be asked to navigate between three windows during their search: the nutritional information guide listed above, the *guide alimentaire* used for the unit introduction, and the language dictionary website www.wordreference.com. They need the dictionary site to determine meanings of unidentifiable food item vocabulary as well as to determine gender of items (foods are listed in both guides without gender identifiers); they need the *guide alimentaire* for food groupings and extra support.

Students will be required to keep index cards on each food item they research. The cards will be color-coded, stored on a ring, and separated by food group indicator cards, as described below.

Vert: Légumes et fruits. (Green: Vegetables and fruits)

Jaune: Produits céréaliers. (Yellow: Grain Products)

Bleu: Lait et substituts. (Blue: Milk and substitutes)

Rouge: Viandes et substituts. (Red: Meats and substitutes)

Blanc: Huiles et autres matières grasses. (White: Oils and other Fatty substances)

Violet: Boissons. (Purple: Drinks)

These category names and distinctions come from the Canadian *Guide alimentaire* recommendations. The names of categories and the servings suggested are slightly different in the French Nutrition Guide. The unit will begin with and center around using the Canadian information, as it is simpler to use. For example, it refers to grain products with the cognate phrase *produits céréaliers* as opposed to the unguessable *féculents* , and it gives exact serving recommendations per age group, as opposed to the more general French guidelines. After we are very familiar with the Canadian guidelines and terminology, we will look at the French information in order to compare and contrast. Canada is closer to us, and it will serve as a good bridge to the French nutritional documents (although there are many more similarities among the documents than differences). The data collected below will be collected from the Canadian information.

Students will be required to research at least ten items from each group, with the exception of fruits and vegetables, where they will choose ten fruits AND ten vegetables. Students will be required to list the following information on each card (provide a template so that students don't bunch all the information up as in the following list!):

Nom (Name), *Genre* (gender), *Article défini* (Definite article - le/la/l'/les), *Article indéfini* (Indefinite article - un/une/des), *Groupe Alimentaire* (food group), *Couleur* (color), *Une Portion* (one serving), *Portions récommandées par jour* (servings recommended per day), *Exemples de portions par jour* (examples of servings per day), *Calories, Lipides Totales* (Total Fats), *Lipides saturés* (Saturated fats), *Lipides+trans* (Trans Fats), *Cholestérol, Sodium, Glucides-Fibres* (Fiber), *Glucides-Sucres* (Sugars) *, Protéines, Autres eléments nutritifs notables - Vitamines, minéraux, etc.)* (Other notable nutritive elements - Vitamins, minerals, etc), *J'aime/J'adore/Je déteste/Je ne connais pas. . . cette nourriture. [Cercler-un]* (I like/I love/I detest/I don't know. . . this food [Circle one]. Students will glue or draw a picture of each item on one side of the card.

At this stage, I have not explicitly addressed the specific meanings of each of these nutritional categories. I want students to activate prior knowledge as they navigate the sites and decipher meanings as they go. That will afford them the opportunity for many aha! moments when I *do* address them later. Be sure to take the opportunities as they arise to discuss the difference between processed and unprocessed versions of each food type. Whenever applicable, urge students to distinguish between different sources of an item, as in fruit jelly versus fresh fruit, and frosted cake versus whole grain bread.

The Relationship Between Definite and Indefinite Articles

The following is a list that can be given to students to help them learn and remember when they should use definite articles, indefinite articles, or expressions of quantity, according to the -er verb practiced. Other verbs may be used and added to this list, which only serves as a foundational aid. Following the list is a more detailed description of situations for use, to guide instructional planning and practice.

Articles Définis: ***aimer, adorer, détester, manger*** (généralement) *, augmenter, limiter,*

comparer
Articles Indéfinis: recycling *vouloir* phrases, *cuisiner, préparer, manger* (spécifiquement)
Expressions de Quantité: *consommer, recommander*

I like to teach students that definite articles are so named because they identify a definite, particular item as opposed to any old one of those items, for which you use the indefinite article. I provide the following example to illustrate this difference: *Donne-moi un stylo* versus *Donne-moi le stylo* or *Give me **a*** pen (where any old pen will do) versus *Give me **the*** pen (where there is a particular pen to which I am referring). That usually works well, but here we need to broaden our scope.

In this unit I will introduce the concept that, when you refer to items in general, you need to use an article, in contrast to English where we use no article (*I like apples* is *J'aime les pommes* and not *J'aime pommes*). If they apply the previously explained rule, students may think that they should use the indefinite article, arguing that they like any apple, not a particular one. I will address that although this argument makes sense according to our previous knowledge, in practice it turns out not to be correct. Students need to understand that sometimes rules don't apply across the board, but that that does not negate the value of thinking in a critical way. I will explain that sometimes we are just speaking in general terms, sometimes it is not a matter of a particular item or any old item, as in our previous rule example, but sometimes it is just a matter of the item in general, as in *I like apples.* In that case, we use the definite article because it is tied very closely to the noun. However, if I am eating **an** apple, then *Je mange **une*** pomme. If it helps, students can think of it as an expression of quantity, I am eating one apple or some (several) carrots. I will ask students to chart the intricacies in using definite and indefinite articles with the verb *manger,* and then I will have them share their charts. I will also create one as another option for students. Even if they don't like their own chart, if perhaps it isn't as accurate as another one, that's fine. Students will be encouraged to copy the chart they like, so that each student feels he or she has a reliable reference tool.

Another way to approach the issue is this. In French, nouns are always used with the definite article, as opposed to English where they are not. Nouns are listed without them in dictionaries because it wouldn't make sense to list all nouns by *le, la, l'* or *les* . And they are not listed in charts and tables (like the nutrition guides we will use in this unit) for simplicity's sake. So many "le"s and "la"s would detract from the clarity of the tables and clutter them up. So they are omitted. But the general rule of thumb is to never use a noun without a definite article, unless you are replacing it with an indefinite article or a particular quantity. So when you speak in general terms, you use the definite article.

We will use both types of articles in many different ways throughout the unit. Each function will be clearly and purposefully introduced with whether one uses the definite or indefinite article, and I will avoid examples that blur the general rules indicated any more than this basic and necessary difference might, so that students may develop a natural sense of when to choose a definite or an indefinite article.

Students will be asked to use definite articles when discussing likes, with the verbs *aimer, adorer,* and *détester* , and then indefinite articles when discussing wants, as they recycle the phrases *Qu'est-ce que tu veux?* (What do you want?) and *Je voudrais* (I would like). This practice will be explicit and repetitive, to get students familiar with the food item vocabulary at the same time as they begin to develop a feel for definite and indefinite article usage.

This will lead to asking and stating what foods people eat, where students will use definite articles, as in *Tu manges le fromage?* or *Je mange les pommes.* (Do you eat cheese? I eat apples.) After we study the nutritive values of different foods, we will progress to statements describing and questions concerning why we eat certain foods, such as *Je mange les oranges pour la Vitamine C* and *Elle mange le pain pour le calcium ou pour les fibres?* (I eat oranges for Vitamin C. Does she eat bread for calcium or fiber?)

To make this practice more meaningful, I will create a mini-dialogue or scenario around inviting someone over for a particular meal, asking them what they want to eat for that meal, what foods they do or don't eat and why (1). I will model the scenario orally several times with hand puppets, and then will ask students to use their own hands as props to get comfortable with the scenario. Ultimately, I will have students act the scenario out on their own, first acting from prompts, and then offering personal choice in the specific details of their skit.

We will use the verbs *consommer* and *recommander* to discuss recommended servings per day, so they will be followed by quantities, as in *Je consomme quatre portions de lait chaque jour* and *On recommande six portions de produits céréaliers par jour.* (I consume four servings of milk each day. Six servings of grain products are recommended each day.) Based on these serving recommendations, we will use the verbs *augmenter* and *limiter* to discuss foods we need to increase or limit and the relationship between those recommendations and foods or nutritional elements that we need to increase or limit. These verbs will be followed by definite articles, as in *Il augmente les fibres qu'il mange quand il mange le pain complet* and *Nous limitons le sodium que nous mangeons, donc nous mangeons peu au fast-food.* (He increases the fiber he eats when he eats whole grain bread. We limit the sodium we eat, so we eat fast food infrequently.) This will then lead to using the verb *comparer* to compare the nutritionals of two foods, as in the directive *Comparez les lipides dans le lait entier et le lait écrémé.* (Compare the fats in whole and skim milk.) In these instances definite articles will be used.

Students will choose recipes according to health benefits. They will state what meal they are cooking or preparing with the use of indefinite articles, as in *Je cuisine des pâtes avec des tomates pour les fibres et la vitamine C* and *Ma mère prépare une salade avec des poivrons rouges et des épinards pour le fer et les vitamines A et C.* (I cook some pasta with tomatoes for fiber and vitamin C; My mother prepares a salad with red peppers and spinach for iron and vitamins A and C.)

Negation

Because this unit is designed to strengthen regular -er verb conjugation, negation will be addressed in terms of word substitution, and the next unit I teach will address conventional negation structures. By word substitution, I mean responding to the question *Elle aime les concombres?* (Does she like cucumbers?) with *Non, mais elle aime l'asperge.* (No, but she likes asparagus.)

Content and Modeling

In the following sections of this unit, I will provide information on the components of a healthy diet. Each section will begin with a model, written in English, of how to break this sometimes complex information down into more simple vocabulary, utilizing cognate vocabulary and repetition to help newer language students to comprehend the instruction. This information will be helpful for teachers of a language other than French who wish to adapt this unit to their own language of instruction. In this section I will also provide ideas for visual props and other techniques to support the language instruction; these will appear in brackets within the English text. A French language version of the content information will follow.

Une alimentation équilibrée (A Balanced Diet)

A balanced diet is necessary for the proper functioning of the body (2). Food possesses nutrients. Nutrients give us the energy to do things (to walk, to work, to sing, to play soccer, etc. . ..) Nutrients also keep the body in good health. A balanced diet is a protective factor against cancer, cardiovascular ailments, diabetes, obesity, and many other maladies.

Nutrients provide the body with calories. A calorie is a unit of measure of energy. It quantifies the energy that the body ingests when it eats as well as the energy that the body expends when you exercise. In reality, what we call a nutritional calorie is actually a *kilocalorie;* but it's easier to speak of 200 calories than of 200 thousand calories. The recommendations for the quantity of calories to eat each day vary according to age, sex, height, and quantity and degree of activity, but the average for adolescents is about 2400 calories for girls and about 2700 for boys.

Two groups of nutrients exist: macronutrients and micronutrients. Macronutrients are necessary in large quantities and micronutrients in small quantities (like macroscopic and microscopic, macrocosm and microcosm). [I will provide illustrations of all 3 pairs of micro/macro words to support student learning here.] There are four types of macronutrients: carbohydrates or sugars, proteins, lipids or fats, and water.

There are two types of micronutrients: vitamins and minerals. Micronutrients help the body to use the macronutrients properly.

[I will show a poster of a body with restickable or velcro labels. I will stick on a balance of macro- and micro-nutrients and then a big happy face. I will stick on several different examples of imbalances with a big sad face. Later in the unit, I will use this model to illustrate more complex scenarios, including the body effects of different sources of fats and proteins, complex versus simple sugars, and a variety of produce versus not too much produce. Students will be asked to correct imbalances by switching nutrients or food sources.]

Une alimentation équilibrée est nécessaire pour le bon fonctionnement du corps. La nourriture possède des nutriments. Les nutriments nous donnent de l'énergie pour accomplir des choses, pour faire des choses (marcher, travailler, chanter, jouer au foot, etc. . ..) Les nutriments maintiennent également le corps en bonne santé. Une alimentation équilibrée est un facteur de protection contre le cancer, les maladies

cardiovasculaires, le diabète, l'obésité, et beaucoup d'autres maladies.

Les nutriments fournissent le corps des calories. Une calorie est une unité de mesure d'énergie. Elle quantifie l'énergie que le corps ingère quand on mange et aussi l'énergie que le corps dépense quand on s'exerce. En réalité, ce qu'on appelle une calorie nutritionnelle est vraiment une *kilocalorie;* mais il est plus facile de parler de deux cent calories que de deux cent mille calories. Les recommendations de quantité de calories à manger chaque jour varient suivant l'âge, le sexe, la taille, et la quantité et le dégré d'activité, mais la moyenne pour les adolescents est à peu près de deux mille quatre cent calories pour les filles et à peu près de deux mille sept cent pour les garçons (3).

Deux groupes de nutriments existent: les macronutriments et les micronutriments. Les macronutriments sont nécessaires en grandes quantités et les micronutrients en petites quantités (comme macroscopique et microscopique, macrocosme et microcosme). Il y a quatres espèces de macronutriments: les glucides ou les sucres, les protéines, les lipides ou les grasses, et l'eau.

Il y a deux espèces de micronutriments: les vitamines et les minéraux. Les micronutriments aident le corps à bien utiliser les macronutriments.

Les glucides ou les sucres (Carbohydrates or Sugars)

Glucose is the principal source of energy for the body. Glucose comes from sugars (carbohydrates). There are two types of sugars, or two types of carbohydrates, or two direct sources of glucose: simple sugars and complex sugars, or simple carbohydrates and complex carbohydrates. Simple carbohydrates are absorbed quickly by the body, for fast but brief energy. Complex carbohydrates are absorbed slowly, because they have more nutritional value.

The primary simple sugars are fructose (found in fruits), sucrose (table sugar), and lactose (found in milk). There are many others, but that's enough for us right now! Foods made primarily of refined sugar, or table sugar, are rich in calories but poor in nutritive elements, so these foods should be limited (pastries, chocolate, sugary beverages, cakes, ice cream).

There are two types of complex sugars (complex carbohydrates): starch and dietary fiber. They both come from plants, and they are both more nutritious than refined sugars. Starch is found in potatoes, grains (bread, rice, pasta) and beans (black beans, chick peas). Dietary fiber is found in fruits, vegetables, whole grains, and beans. Fiber is not digested, but it is very important to clean out the inside of the body. It helps to lower cholesterol. One gram of carbohydrate or sugar equals four calories.

Le glucose est la source principale d'énergie pour le corps. Le glucose vient des sucres (des glucides). Il y a deux espèces de sucres, ou deux espèces de glucides, ou deux sources directes de glucose: les sucres simples et les sucres complexes, ou les glucides simples et les glucides complexes. Les glucides simples sont absorbés rapidement par le corps, pour se transformer en énergie rapide mais brève. Les glucides complexes sont absorbés lentement, parce qu'ils ont (ou possèdent) plus de valeur nutritionelle.

Les sucres simples primaires sont le fructose (trouvé dans les fruits), le sucrose (le sucre de table), et le lactose (trouvé dans le lait). Il y en a beaucoup d'autres, mais cela suffit pour nous maintenant. Les aliments à

base de sucre raffiné, ou de sucre de table, sont riches en calories mais pauvres en éléments nutritifs, donc il faut limiter ces aliments (les pâtisseries, le chocolat, les boissons sucrées, les gâteaux, la glace).

Il y a deux espèces de sucres complexes (glucides complexes): l'amidon et les fibres diététiques. Ils proviennent tous les deux des plantes, et ils sont plus nutritionels que les sucres raffinés. On trouve l'amidon dans les pommes de terres, les grains (le pain, le riz, les pâtes) et les légumineuses (les haricots noirs, les pois chiches). On trouve les fibres diététiques dans les fruits, les légumes, les grains complexes, et les légumineuses. On ne digère pas les fibres, mais elles sont très importantes pour nettoyer l'intérieur du corps. Elles aident à baisser le cholésterol. Une gramme de glucide ou de sucre égale quatre calories.

[Depending on which documents you give the students, *beans* are referred to as *légumineuses, légumineuses cuites,* or *légumes secs. Vegetables* are always referred to as *légumes,* although they are of course differentiated into *légumes frais, légumes surgelés, légumes en conserve,* and *légumes feuillus.* Decide ahead of time how complex you will get with this vocabulary. Although *légumes* is the more traditional and culturally correct way to say *beans,* I will use *légumineuses* to make things simpler for my students. I find it sufficient to stress the *légum-* word root that the words share while providing distinct vocabulary words for student use.]

Les protides ou les protéines (Proteins)

The entire body is composed of millions of very very small cells. These cells are essentially composed of water and protein (but there is also a little fat and a little nucleic acid like DNA inside them). Protein is necessary to build new cells and to repair weak or damaged cells. To grow properly, it is necessary to eat enough protein. Protein is important to the health of the muscles, the bones, the skin, the hair, everything! Protein is composed of amino acids; there are twenty different types of them. Some amino acids are only found in food, but others can be made by the body. It is necessary to eat a variety of sources of protein to ingest all the types of amino acids. Protein is found in dairy products, eggs, fish, meat, chicken, turkey, beans, tofu, whole grains, nuts and nut butters (like peanut butter). Watch out for fats in these foods! One gram of protein equals four calories.

Le corps entier est composé des millions de cellules très très petites. Ces cellules sont essentiellement composées d'eau et de protéines (mais il y a aussi un peu de lipides et un peu d'acides nucléiques comme le DNA au-dedans). Les protéines sont nécessaires pour construire de nouvelles cellules et pour réparer les cellules faibles ou endommagées. Pour bien grandir, il faut manger assez de protéines. Les protéines sont importantes pour la santé des muscles, des os, de la peau, des cheveux, de tout! Les protéines sont composées d'acides aminés; il y en a vingt espèces différentes. Quelques acides aminés sont trouvés seulement dans la nourriture, mais les autres peuvent ítre fabriqués par le corps. Il est nécessaire de manger une grande variété de protéines pour ingérer toutes les espèces d'acides aminés. Les protéines se trouvent dans les produits laitiers, les oeufs, le poisson, la viande, le poulet, la dinde, les légumineuses, le tofu, les grains complets, les noix et les beurres de noix (comme le beurre d'arachide/le beurre de cacahuète). Il faut faire attention aux grasses dans ces aliments! Une gramme de protéine égale quatre calories.

[*Peanut butter* is referred to as *beurre d'arachide* in Canada and other Francophone countries, while *beurre de cacahuète* is used in France.]

Les lipides ou les grasses (Lipids or fats)

Fats, or lipids, are a major component or element of many foods. They transport certain vitamins within the body. Lipids are necessary to life, but small quantities suffice (a little goes far)! Lipids give nine energy

calories per gram (by contrast, vegetables, fruits, grain products, and proteins give four calories per gram.) There are about 14 ¼ grams of fat in one tablespoon. There are lots of calories in one serving, and servings are rather small. When the body has too much energy in reserve (because more calories were eaten than were necessary for the activities done), the body transforms glucose into fat, and this overabundance of energy is called *body fat.* This body fat is necessary. It insulates the body from the cold, it keeps the skin healthy, and it protects the body from injury.

There are two general types of lipids, visible lipids and invisible, or hidden, lipids. Visible lipids are *added* when you prepare food, when you cook and season food. Invisible lipids are naturally present in foods.

Furthermore, there are two different categories of lipids or fats: Saturated fats and unsaturated fats. Saturated fats are solid at room temperature. Saturated fats are found in products of animal origins (let's not forget dairy products here!) There are other types of saturated fats called trans fats. Trans fats exist in hydrogenated and partially hydrogenated vegetable fats, like butter, margarine, and vegetable shortening. Saturated and trans fats are bad for cholesterol.

Cholesterol is necessary in the body, but in too large quantities it is a risk factor for heart disease. There does not exist a good or a bad cholesterol. The lipoproteins that transport cholesterol in the body are good or bad. **L** ow **D** ensity **L** ipoproteins (LDLs) are not very good transporters; when they have too much cholesterol, the LDLs drop the surplus into the blood. When there is too much cholesterol in the blood, it sticks to the arteries and can eventually block or clog the arteries. **H** igh **D** ensity **L** ipoproteins (HDLs) are very good transporters; they collect cholesterol that is sticking to the arteries and transport it to the liver for elimination.

Trans fats are man-made/artificial; they are created by a chemical process called hydrogenation. You begin with a liquid fat and chemically transform it into solid form; so, these fats are in the end saturated. They prolong the shelf life of packaged foods and they make products like crackers crisper.

Trans fats raise LDLs, the bad cholesterol transporters that drop the extra cholesterol into the blood. Saturated fats raise LDLs and HDLs. Unsaturated fats are better for the body. There are two types of unsaturated fats: Polyunsaturated fats and monounsaturated fats. They are both liquid at room temperature. They both lower LDLs and raise HDLs, which is very good for total cholesterol level. We said that dietary fiber lowers cholesterol. Like HDLs transport cholesterol for elimination when it is in the blood, fiber transports cholesterol for elimination before it enters into the blood.

Monounsaturated fats are found in olive and canola oils, olives, avocados, and nuts, like almonds and peanut butter. Polyunsaturated fats are found in vegetable oils (corn, soybean, sunflower oils) and in fish.

Les matières grasses, ou les lipides, sont un élément majeur de beaucoup d'aliments, beaucoup de nourriture (4). Ils transportent certaines vitamines à l'intérieur du corps. Les lipides sont nécessaire à la vie, mais de petites quantités suffisent (un peu va loin)! Les lipides donnent neuf calories d'énergie par gramme (par contraste, les légumes, les fruits, les produits céréaliers, et les protéines donnent quatre calories par gramme). Il y a à peu près 14 ¼ grammes de lipides dans une cuillière à soupe (5). Il y a beaucoup de calories dans une portion, et les portions sont plut“t petites. Quand le corps a trop d'énergie en réserve (parce qu'on a mangé plus de calories qu'étaient nécessaires pour les activités qu'on a fait), le corps transforme le glucose en lipide, et cette surabondance d'énergie s'appelle *la graisse corporelle.* Cette graisse corporelle est nécessaire. Elle isole le corps du froid, elle garde la peau en bonne santé, et elle protège le corps de traumatismes.

Il y a deux espèces générales de lipides, les lipides visibles et les lipides invisibles, ou cachés. On *ajoute* les lipides visibles quand on prépare de la nourriture, quand on cuisine ou quand on assaisonne la nourriture. Les lipides invisibles sont naturellement présents dans les aliments.

En plus, il y a deux catégories différentes de lipides ou de grasses: Les lipides saturés et les lipides insaturés (6). Les lipides saturés sont solides à température ambiante. On trouve les lipides saturés dans les produits d'origine animale (n'oublions pas ici les produits laitiers!) Il y a les autres espèces de lipides saturés qui s'appellent les lipides trans. Les lipides trans existent dans les grasses végétales hydrogénées et partiellement hydrogénées, comme le beurre, la margarine, et la graisse végétale. Les lipides saturés et les lipides trans sont mauvais pour le cholestérol.

Le cholestérol est nécessaire dans le corps, mais en trop grande quantité, il est un facteur de risque des maladies cardiovasculaires. Il n'existe pas de bon ou de mauvais cholésterol. Les lipoprotéines qui transportent le cholésterol dans le corps sont bonnes ou mauvaises. Les **l** ipoprotéines à **b** asse **d** ensité (**L** ow **D** ensity **L** ipoproteins, LDLs) ne sont pas de très bons transporteuses; quand elles ont trop de cholésterol, les LDLs laissent tomber le surplus dans le sang. Quand il y a trop de cholésterol dans le sang, il colle aux artères et peut eventuellement bloquer ou boucher les artères. Les **l** ipoprotéines à **h** aute **d** ensité (HDLs) sont de très bons transporteuses; elles ramassent le cholestérol qui colle aux artères et le transporte au foie pour l'élimination.

Les lipides trans sont artificiels; ils sont crées par un processus chimique qui s'appelle l'hydrogénation. On commence avec une grasse liquide et on la transforme chimiquement en forme solide; donc ces lipides sont enfin saturés. Ils prolongent la durée de vie des produits conditionnés et ils rendent les produits comme les biscuits plus croustillants.

Les lipides trans augmentent les LDLs, les mauvaises transporteuses de cholestérol qui laissent tomber le surplus du cholestérol dans le sang. Les lipides saturés augmentent les LDLs et les HDLs. Les lipides insaturés sont mieux pour le corps. Il y a deux espèces de lipides insaturés: les lipides poly-insaturés et les lipides mono-insaturés. Tous les deux sont liquides à température ambiante. Tous les deux abaissent les LDLs et augmentent les HDLs, ce qui est très bon pour le taux de cholestérol. On a dit que les fibres diétetiques abaisse le cholestérol. Comme les HDLs transportent le cholestérol pour l'élimination quand il est dans le sang, les fibres transportent le cholestérol pour l'élimination avant que le cholestérol n'entre dans le sang.

On trouve les grasses mono-insaturés dans les huiles d'olive et de canola, les olives, les avocats, et les noix, comme les amandes et le beurre de cacahuète/d'arachide. On trouve les grasses poly-insaturés dans les huiles végétales (l'huile de mäis, de soja/soya, de tournesol) et dans le poisson.

[In France *soy* is spelled *soja,* but in Canada it is spelled *soya.*]

L'eau (Water)

Between fifty and seventy percent of the body is made of water! Water is in all the cells of the body *and* around the cells. It is also in bodily fluids, like blood, sweat, and tears. Water is necessary for all the body's functions. [Here I would show the graphic of the percentages of water that make up different parts of the body, found on page 25 of the Cap Sciences resource entitled *L'eau à la bouche.*] You should drink a lot of water, all throughout the day. For the best health, if you are thirsty, it is already too late. It's like a car. You've got to fill it up with gas *before* the car stops.

Entre cinquante et soixante-dix pour cent du corps est composé d'eau! L'eau est dans toutes les cellules du corps *et* autour des cellules. Elle est aussi dans les fluides du corps, comme le sang, la sueur, et les larmes. L'eau est nécessaire pour toutes les fonctions du corps. On doit boire beaucoup d'eau, tout au long de la journée. Pour une meilleure santé, si vous avez soif, c'est déjà trop tard. C'est comme une voiture. Il faut la remplir d'essence *avant que* la voiture ne s'arríte.

Les Micronutriments (Micronutrients)

Vitamins and minerals are necessary for the body. A variety of foods must be eaten to ingest all the necessary vitamins and minerals. It is a good idea is to eat by color. If you eat a variety of colors every day, you eat a variety of vitamins and minerals. For fruits and vegetables, there are five categories: Red, orange-yellow, green, blue-purple, and white. [See the *Five a Day* website for more information and ways to introduce this concept in class. I will have students classify researched produce items by color, and we will create a set of color class charts. Then I will make sticky labels of the vitamins and minerals in each item, so that we can try to make some deductions about the relationship between color and nutritional elements.]

Les vitamines et les minéraux sont nécessaires pour le corps. Il faut manger une variété d'aliments pour ingérer toutes les vitamines et tous les minéraux nécessaires. C'est une bonne idée de manger de couleur. Si vous mangez une variété de couleurs chaque jour, vous mangez une variété de vitamines et de minéraux. Pour les fruits et les légumes, il y a cinq catégories: le rouge, l'orange-jaune, le vert, le bleu-violet, et le blanc.

Students will use nutritional information charts to compare produce items by asking and answering questions according to prevalent vitamins. The following is a list of possible comparison constructs:

Il y a plus/moins de vitamine X dans Y ou dans Z?
Is there more/less vitamin X in Y or in Z?
Il y a plus/moins de vitamine X dans Y/Z.
There is more/less vitamin X in Y/Z.
Y a plus de ou moins de vitamine X que Z?
Does Y have more or less vitamin X than Z?
Y a plus/moins de vitamine X que Z.
Y has more/less vitamin X than Z.
Y a deux fois plus de vitamine X que Z, oui ou non?
Y has two times as much vitamin X as Z, yes or no?
Oui, Y a deux fois plus de vitamine X que Z.
Yes, Y has two times as much vitamin X as Z.
Non, Z a deux fois plus de vitamine X que Y.
Non, Z has two times as much vitamin X as Y.

Un répas équilibré (A Balanced Meal)

One day, I will take students to the technology center to explore nutrition labels. Santé Canada has an interactive guide to nutrition labels that will be used as a foundation from which to lead my own, more simplified explanation of the site. Each teacher will know the level of his or her own students, and so will best know how to modify the information on this site. I will show students the full page relating to what I will introduce while I introduce it. Then I will show a Power Point slide I created with excerpts from the first page, showing just the most basic and necessary words and information. I will rephrase complicated language and employ visual cues. Students will be given a printout of the Power Point slides with blanks to fill in during the lesson. I will in essence toggle back and forth between the original site and my simplified version of the information to assure student comprehension while still pushing them into the discomfort zone ever so slightly. The next day I will bring in a variety of nutrition labels; I will try to procure authentic labels, but if not, I will make some so that students can practice with them. I may have students complete a homework assignment in which they convert the nutrition label of something they eat often into French. Then we will use those labels for revisited practice later in the lesson. I will also print and use the nutrition information from the MacDonald's Canada website for practice.

Students will ask and answer questions concerning what foods they eat at particular meals. They will learn how to add *Qu'est-ce que* in front of a subject-verb combination to ask what a person does, in this case, what a person eats or likes. Students will have been keeping a food log for two weeks. This log will be the basis for these questions, and students will analyze their own data to create relevant data charts and graphs concerning their daily diet. We will also create a class graph from the information culled from classroom interviews. Students will analyze their graphs to make certain recommendations or goals for themselves.

I will again take students to the computer lab, and we will use a tool called *Menu au go—t de jour* provided on the *Diétistes de Canada* website. It is an interactive activity in which you choose a day's menu based on certain given choices. The site then analyzes your choices based on the nutritional guidelines recommended for the gender and age you provide. It gives short explanations and allows you the chance to revise your choices to get closer to the recommendations. There is an option to print your created menu, and I will have students do that before and after revisions. They will then write a paragraph explaining why they chose the items they did, and another explaining any revisions they made. Note: Be sure to address the different names for meals in French Canadian as opposed to Parisian French, i.e. *déjeuner* instead of *petit-déjeuner* , *dîner* instead of *déjeuner, souper* instead of *dîner* , and *collation* instead of *go—ter* .

From the previously mentioned site, you may also link to a variety of recipes. I will print several out for another day's lesson. I will use the *Cuisine AZ* and the *Dari Couscous* website to find more recipes. Students will read recipes and highlight healthful ingredients in one color, and unhealthful ingredients in another. They will then compare recipes to decide which they should "make" and why.

Les Portraits de Soi (Self-Portraits)

As a culminating project, students will create a self-portrait in the style of those found in the French Food Guide *La Santé Vient en Mangeant,* put out by the PNNS. Students will draw, paint, or collage a portrait made either out of food items that they eat often or food items they aspire to eat often. They must write a single-sentence summary or slogan that describes their chosen diet. Then students will write as many paragraphs as they can about why each item was chosen, and why it is important or questionable in a daily diet. Students will orally present their findings to the class, using the portrait (which has no language on it except the single summary phrase students create to represent their eating style). Students will be allowed one index card with relevant vocabulary but no sentences. Extra Credit may be given for including and referring to recipes in the self-portrait.

Assignment components are scaffolded to allow students to progress at their own pace. Student portraits will be scored according to comprehensiveness (40), creativity (30), relevance to the summary sentence (20), and completion (10). Once a satisfactory score (80+) has been achieved, students will move on to the writing section of the assignment. Writing will be scored according to the following criteria: Addresses all food items included in portrait (30), Correct conjugation/use of -er verbs (35), Health benefits and risks of foods properly identified (35). When students have achieved an 80+ on this assignment (which can be achieved through rewrites), they are then ready for the oral presentation and must create an approved index card to refer to during the presentation. Oral presentations will be scored according to comprehensibility (30), accuracy in vocabulary (30), accuracy in linguistic structures (30), and overall fluency (10).

As an interpersonal, conversational assessment, students will ask partners questions about their own self-portraits. They will be given a list of points to consider that reflect the unit's learning goals and activities. Here, students will be assessed according to ability to convey meaning and to form and respond to questions and answers appropriately. Alternatively, students could choose self-portraits out of a hat and assume those identities in order to have a conversation about the portraits.

Annotated Resource List

American Diabetes Association. *Specific Types of Fats.*

http://www.diabetes.org/nutrition-and-recipes/nutrition/foodlabel/specific-fats.jsp

This site provides a clear explanation of the differences between types of fat and sources of each, to clarify knowledge for the teacher.

American Heart Association Alliance for a Healthier Generation. http://www.healthiergeneration.org/

This site is made to appeal to young people, so it is heavy with graphics and interactive opportunities. I found it slow and not very useful for my needs in general, but it does have information on the Go Healthy Challenge.

BelleMag. *La régime méditerranéen.* http://www.relaisgourmand.org/belle/forme/dietemedi2.htm

This has a cute picture of the mediterranean food pyramid and information on that way of eating. If students are asked to create their own food guide representation, this could serve as an example.

Cap Sciences. *¿ table! L'alimentation en questions: Un dossier pédagogique.*
http://www.cap-sciences.net/site.asp?site=dossierspedago

Cap Sciences is a group created to further the education and exploration of science, and technology, specifically in the Aquitaine region of France. This link is to a wealth of quality information geared towards middle school (collège) teachers and their French students. It provides graphically pleasing information sheets with diagrams describing the functions and processes of health and nutrition. Although is probably too advanced to use on its own in the second language classroom, the language structures and content can be adapted in many ways, or small sections can be used to illustrate points in class. The section on *La digestion* was helpful to me, and pages eight and nine in the section entitled *Équilibre alimentaire* give good models for explaining how to meet your daily protein or fat requirements. There are also worksheets that can be modified or borrowed from in designing your own review worksheets.

Cap Sciences. *L'eau à la bouche.* http://www.cap-sciences.net/upload/sites/dossierspedago/dossier-eau-1-74.pdf

From the same group listed above, this link is to a seventy-five page document on water. Page 25 has a useful graphic of a human body, with labels marking the percentage of certain body parts that is water (lungs 80%, muscles 73%, teeth 10%, etc).

Cuisine AZ. http://www.cuisineaz.com/

This website can be used to locate recipes for student analysis and comparison.

Cyberpresse. http://www.cyberpresse.ca

This website gives access to articles from several different French Canadian newspapers, and is a good source to locate timely reading selections on health, nutrition, and recipes.

Dari, La maison du couscous. http://www.couscousdari.com/fr/index.html

This website is sponsored by Dari, maker of couscous products. It provides information, in French and in English, about the history of couscous and maghreb culture. Many students are unfamiliar with couscous, so this site is valuable. It has a publicity spot for the product in French and in Arabic, and includes recipes and a mediterannean food pyramid that can be used to compare and contrast with the others studied in this unit.

Les Diététistes du Canada. Au menu: santé et nutrition.

http://www.dietitians.ca/public/content/information_francais/index.asp

This is the French-language homepage for the Dietitians of Canada. All information is available in French and English. There is a LOT of great information and opportunities to bring a lot to the classroom. In particular, I like the *Épicerie virtuelle* . It is an interactive way to practice comparing nutrition labels in the supermarket. It is linguistically too advanced for most of my level students to feel comfortable with on their own, but if I reword and reemphasize certain parts of the questions, I think they could enjoy playing this game as a class in the technology center, using the LCD projector. The *Cuisine virtuelle* can be used in the same way, and has a link to many recipes to use in the recipe section of the unit. Also, there is an array of FAQ sheets that can provide short reading practice opportunities.

Education World. *Fred Jones' Tools for Teaching, Weaning the Helpless Handraisers, Part II: Teachingtothe Visual Modality.*

http://www.education-world.com/a_curr/columnists/jones/jones004.shtml

This article can be used to get an understanding of the purpose of a Visual Instruction Plan. I wholeheartedly recommend the entire book, *Tools for Teaching* , by Fred Jones. But until you can get it, this will help! I include, as an Appendix, a VIP I created for conjugating regular -er verbs. Although it has been successful, I still feel that it is a little too complicated. I encourage you to use it as a guideline and adapt or simplify it to suit your needs.

E-Santé. http://www.e-sante.fr/aliments_79-3

This is a French health website that can be used to show students different examples of healthful authentic websites; they can look up food values and informational articles here.

L'Express. http://www.lexpress.fr

This is the website for the French daily newspaper *L'Express.* It can be used to locate timely information on health and nutrition for reading activities, such as the article *Ces ados à gros coeur. 26.04.04.* Although the entire article is too advanced, portions of it can be used to demonstrate concepts (like *coca-colonization*) and too push students to eliminate what is not known and concentrate on what is known to determine meaning of a reading selection.

Fédération des producteurs suisses de lait. *La nouvelle pyramide alimentaire de la Fédération des producteurs de lait.*

http://www.swissmilk.ch/fr/portra it/medias/dossiers-de-presse-info-nutrition/dossiers/2005/juin-la-nouvelle-pyramide-alimentaire-de-la-federation-des-producteurs-suisses-de-lait-psl.html

This website shows nutritional information and food pyramid sponsored by the Federation of Swiss Milk Producers. It can be used to discuss Switzerland as a Francophone country as well as possible reasons why a food producer would support a particular food pyramid.

Five A Day (The Color Way). http://www.5aday.com/index.htm

This website can be consulted by the teacher when planning how to address the benefits of a variety of colors in daily produce selections.

Harvard School of Public Health. *Fats and Cholesterol: The Good, the Bad, and the Healthy Diet.* http://www.hsph.harvard.edu/nutritionsource/fats.html

This article is a useful source of information on fats and cholesterol for teachers, and was consulted in this unit for the section on fats.

McDonald's Canada. *Nutrition Facts.* http://www.mcdonalds.ca/pdfs/NutritionFactsFR.pdf

This site is used to compare nutrition facts for McDonald's menu items.

Nutrition Action Health Letter (from the Center for Science in the Public Interest). http://www.cspinet.org/nah/index.htm

This monthly health letter has great nutritional information for the teacher. Available by subscription, though online archives are downloadable.

Organisation Ouest Africaine de la Santé OOAS. http://www.pfnutrition.org

This site provides objectives for nutrition guidelines in West Africa, as well as these articles: *Double Burden of Malnutrition in West Africa; Vers une meilleure nutrition en Afrique de l'Ouest.*

Passeport Santé. *Nouvelle pyramide alimentaire aux États-Unis.*

http://www.passeportsante.net/fr/Actualites/Nouvelles/Fiche.aspx?doc=2005042602

This Canadian site provides a French language article about the new food pyramid in the United States as well as that in Canada, for reading practice exercises and evidence of a relationship between Canada and the United States.

PBS Teachers. *Health and Fitness.* http://www.pbs.org/teachers/healthfitness

This website has many educational resources to teach health and fitness topics in English, which might be useful to adapt into French.

PR Newswire. *New Study Confirms Canned, Fresh and Frozen Fruits and Vegetables all Provide Nutrients Essential for a Healthy Diet.* http://www.prnewswire.com/news/index_mail.shtml?ACCT=104&STORY=/www/story/03-14-2007/0004545857&EDATE=

This English language article provides information for the teacher on the merits of canned, fresh, and frozen fruits and vegetables.

Programme Nationale Nutrition Sante. *J'aime bouger: Le guide nutrition pour les ados.* http://www.inpes.sante.fr/CFESBases/catalogue/pdf/747.pdf

This twenty-eight page guide is geared towards French adolescent health needs, and is created to appeal to young people. It will be used in class to reinforce what was learned from the Canadian health guide as well as to address differences between the two.

Programme Nationale Nutrition Santé. *Adolescents.* www.mangerbouger.fr/public/ado/ado.php

This page is related to the resource listed below; it is specifically geared towards the health needs of adolescents. It has extensive nutritional information, both downloadable and internet interactive items, devoted to adolescents. For example, the game "Aide Hugo" at the bottom right hand corner of this page is addictive! The goal of the game is to catch foods that fall from the sky in your sack. Catching fruits and vegetables gives you more game time, while catching an anvil (which represents poor food choices) slows you down and you can't catch any good foods in your sack. If you fill your bag with lollipops and steak, your bag will be full when the fruits and vegetables come around, and you will not be able to play for as long, and each game is short as it is! The game is a nice visually interactive demonstration for encouragement to get more fruits and vegetables.

Programme Nationale Nutrition Santé. *La santé vient en mangeant: Le guide alimentaire pour tous* . http://www.inpes.sante.fr/espace_nutrition/guide/download/pdf/GuideGP.pdf

This sixty-five page booklet begins with basic health information followed by twenty-five different "portraits," of people with different health concerns. Each of those sections is opened with an actual portrait created with different representative food items and a single sentence slogan. Then the health needs of that particular type of person are delineated and addressed. The idea could be the basis for a class project in which students identify their own health concerns, create a portrait and a single sentence slogan for themselves as well as a list of recommendations to present to the class.

Royston, Angela. *Vitamins and Minerals For a Healthy Body* . Heinemann Library. Chicago, Illinois, 2003.

Much of the information on healthy body functioning comes from this book.

Santé Canada/Health Canada. *Bien manger avec le Guide alimentaire canadien.*

http://www.hc-sc.gc.ca/fn-an/alt_formats/hpfb-dgpsa/pdf/food-guide-aliment/view_eatwell_vue_bienmang_f.pdf

This nutritional guide pamphlet is integral to the unit, and will be used by students in both electronic and printed format.

Santé Canada/Health Canada. *L'Étiquetage nutritionnel interactif: Faites le point.*

http://www.hc-sc.gc.ca/fn-an/label-etiquet/nutrition/interactive/inl_main_f.html

This site provides a detailed explanation of nutrition labels, which were revamped in 2003. This site will be used with students as an instructional aid.

Santé Canada/Health Canada . *Valuer nutritive de quelques aliments usuels.*
http://www.hc-sc.gc.ca/fn-an/alt_formats/hpfb-dgpsa/pdf/nutrition/nvscf-vnqau_f.pdf

This nutritional information manual will be used by students as they record nutritional information for food items.

Sherwood, Lauralee. *Human Physiology: From Cells to Systems, Instructor's Edition, Fifth edition* . Brooks/Cole - Thomson Learning. California, 2004.

Chapter 16, on the digestive system, was recommended by Professor Saltzman and contains useful, more complete, information for the teacher.

Le Soleil. http://www.lesoleil.sn

This is the website for the Senegalese daily newspaper *Le Soleil.* It can be used to locate timely information on health and nutrition.

US FDA. *Make Your Calories Count: Using the Nutrition Facts Label for Healthy Weight Management.*
http://www.cfsan.fda.gov/~ear/hwm/labelman.html

This U.S. website can be used as a model for adapting your own French language activities.

VanCleave, Janice. *Food and Nutrition for Every Kid: Easy Activities that Make Learning Science Fun* . John Wiley & Sons. New York, 1999.

Much of the information on healthy body functioning comes from this book.

WordReference.com. Online French, Spanish and Italian Dictionary. www.wordreference.com

I prefer this online translation dictionary because I find it to be student-friendly and it is free.

Zelman, Kathleen M. Web MD. *Trans Fats: Just How Bad Are They?.* http://www.webmd.com/content/article/72/81813.htm

This article is a useful source of information on Trans Fats for teachers, and was consulted in this unit for the section on fats. The WebMD site is good to use for researching confusing health topics in general.

Notes

1. This technique was compellingly demonstrated by Japanese teacher Jessica Haxhi, who led a two-week long institute this July 2007 titled *World Languages K-8: Methods, Materials & Curriculum Development* . The textbook used during the institute was the priceless third edition of *Languages and Cultures: Making the Match,* by Helena Curtain and Carol Ann Dahlberg. If you have read a previous edition of this book, as I had, please consider reading this newest edition. It reinvigorated my philosophy of language instruction, and has been extremely well-revised.

2. All the information on nutritional data and components of a healthy diet has been assimilated and written in French by the author of this unit from the following sources: Programme Nationale Nutrition Santé (*La santé vient en mangeant: Le guide alimentaire pour tous);* Santé Canada/Health Canada (*Bien manger avec le Guide alimentaire canadien);* Van Cleave, Janice; Royston, Angela; Cap Sciences (*¿ table! L'alimentation en questions: Un dossier pédagogique).* Several other sources were consulted, and are noted in the *Resources* section of this unit. Suggestions and corrections for the written French language in this section was graciously offered by French teacher Vlasta Grech.

3. http://www.e-sante.fr/fr/forums_sante/calories-20071-79-1.htm

4. Some of this information also comes from the following website: http://fderad.club.fr/lipides.htm.

5. http://www.gourmetsleuth.com/gram_calc.htm

6. Les g *rasses* is a conventionally-used shortened form of *les matières grasses* .