

This is Section III of the *Nutrition Education Resource Guide*, published 2011 by the California Department of Education. The purpose of this guide is to provide an instructional resource for California schools, from kindergarten through grade twelve, to implement effective, standards-based nutrition education programs for students.

The complete publication is available at <http://www.cde.ca.gov/ls/nu/he/nerg.asp>.

## III. Guidance on Implementing a Quality Nutrition Education Program

### General Considerations for Implementation

**T**o be effective, nutrition education needs to be much more comprehensive than disseminating basic nutrition information. Quality nutrition education addresses food preferences and sensory–affective factors; person-related factors such as perceptions, beliefs, and attitudes; meanings and social norms; and environmental factors. Skill development is another focus.

Design and implementation of an effective nutrition education program require consideration of the many influences on food choices, nutrition-related behaviors, and the dietary change process. Strategies need to be based on theory and research evidence and should facilitate behavioral change.

The development of a nutrition education program should first include an assessment of current practices and policies related to nutrition education. Then, an overall instructional plan needs to be established. Ideally, the education program is built around one or two core nutrition curricula that are used in a sequential manner and reinforced at each grade level. Depending on the comprehensiveness of the curricula, the educator might supplement with additional activities to address nutrition competencies that are not adequately covered by the core nutrition curricula and to provide enrichment activities. This instructional plan needs to be tailored to consider the specific and often-changing needs of the students, the setting of the nutrition education, and the time and resources available.

Delivery of the nutrition education program must also be consistent with statutes and guidance on nondiscrimination. Nutrition education must be free from discrimination and harassment regardless of a student’s disability, gender, nationality, race or ethnicity, religion, or sexual orientation or any other characteristic that is



contained in the definition of hate crimes set forth in Section 422.55 of the California *Penal Code*. The education must be provided in a way that addresses the instructional needs of all students, including English learners, advanced learners, students with disabilities, and students with reading skills below grade level.

Specific consideration should be given to the cultural appropriateness and the context of the learning.

**Cultural appropriateness.** The curriculum should be culturally appropriate. Nutrition education presents opportunities for students to learn about and experience cultural diversity related to food and eating. Students from different cultural groups have different health concerns, eating patterns, food preferences, and food-related habits and attitudes. These concerns need to be considered in implementation of the curricula and any discussion of food choices. Students of diverse cultural backgrounds are to be provided with a safe and culturally sensitive learning environment.

**Context.** The Centers for Disease Control and Prevention (1996) notes that “the context in which students learn about healthy eating behaviors and the feelings students associate with healthy foods are key factors in determining the receptivity to nutrition education.” Students learn better through fun, participatory activities that emphasize the positive aspects of healthy eating and when healthy eating is presented in the context of what is already important to students. In general, students value a healthy self-image about their physical appearance, sense of personal control and independence, and capacity for physical activity.

Some resources to provide culturally appropriate education can be found at the USDA National Agricultural Library, Food and Nutrition Information Center Web site at <http://fnic.nal.usda.gov/> (accessed July 22, 2011).

Ideally, implementation of a quality nutrition education program should involve assessment, planning, monitoring, and evaluation. The four phases are explained further.

## Assessing the Local School Wellness Policy

A good way to begin implementation of nutrition education is by conducting a review of the district’s local school wellness policy related to nutrition education and then comparing the policy language with evidence of implementation. An effective nutrition education policy is comprehensive; uses strong, enforceable language; and contains specific guidance for implementation.

Each school district's local school wellness policy must include a nutrition education component, although the language and guidance in this area are left to local discretion. A strong emphasis on nutrition education in the local school wellness policy is useful for implementing an effective nutrition education program because it establishes an enforceable framework that can be communicated clearly to administration and other key stakeholders. Congruence between the policy and its implementation is essential as a key factor in sustaining nutrition education in schools. Districts can first assess their local school wellness policy for areas that address nutrition education and then work on strengthening the policy, as needed. This can be done by either revising the policy itself or by developing administrative regulations that add specific language to guide implementation.

### **1. Ensure comprehensiveness in the nutrition education policy**

The first part of assessing the nutrition education component of the policy is to ensure that all required and/or desirable sections related to nutrition education are included and appropriately addressed.

Examination of the overview is the first task. This section should support the overall nutrition education component by describing the importance of nutrition education and the role that good nutrition plays in promoting childhood growth, health, and learning. The overview sets definable goals and publicly commits the district to providing adequate time for a nutrition education program. Other aspects to include are a commitment to serving healthy and appealing foods at school, developing food-use guidelines for teachers, supporting healthy school meals, and establishing links with nutrition service providers.

For example, an effective overview would:

- discuss the role of child and adolescent nutrition in reducing the risk for chronic diseases of adulthood;
- identify the importance of establishing a school environment that supports healthy eating choices by young people;
- generate support for the local school wellness policy by identifying how improvements in student nutrition can satisfy the needs of different constituents of the school community (e.g., students, teachers, and food service personnel).

The next step is to identify all the sections in the local school wellness policy where nutrition education is addressed. Generally, a section devoted specifically to nutrition education is best. In addition, nutrition education may be addressed in connection to the cafeteria and classroom; in policies related to healthy fundraising, classroom

celebrations, and prohibitions on the use of food as a reward or punishment; professional development of staff; parent education; and in coordination of nutrition education with other areas of student health, such as physical activity, physical education, and health education.

## 2. Strengthen the wording in the local school wellness policy

The language with which the policy is expressed is critical. A strong policy can be monitored and is specific enough to be enforced. Below are some useful definitions provided as a guide for assessing and strengthening the wording of the policy related to nutrition education.

**Strong policies** are defined as those that are definitely required and have language that specifies an implementation plan or strategy. Strong policy provisions include words such as *shall, must, will, require, comply, and enforce*.

**Weak policies** are defined as those that include *vague terms, suggestions, or recommendations* as well as those that require action but note exceptions for certain grade levels or certain times of the day. Weak policy provisions include words such as *should, might, encourage, some, promote, make an effort, partial, and try*.

Bridging the Gap, a research program of the Robert Wood Johnson Foundation, assesses and documents the quality of school wellness policies nationwide, and defines the quality of wellness policies. The reports can be viewed at [http://www.bridgingthegapresearch.org/research/district\\_wellness\\_policies/](http://www.bridgingthegapresearch.org/research/district_wellness_policies/) (accessed October 27, 2010).

## 3. Include specific language in the policy provisions

Specificity strengthens a policy. Guidance on what is taught, when, how often, and by whom should be included in the policy. A local school wellness policy that has specific language regarding the structure and implementation of nutrition education makes it easier to enforce the policy. Policies that are specific:

- address the importance of quality nutrition education to the academic achievement of students and their overall well-being;
- require the use of curricula that adhere to the Dietary Guidelines and other science-based nutrition research and evidence-based instructional strategies;
- require a sequential, standards-based nutrition education program that meets the California HECS and the nutrition competencies and uses curriculum that is comprehensive, sequential, and taught at each grade level;

- specify the number of nutrition education courses or contact hours. Fifty hours of nutrition education per year is highly recommended to achieve behavioral change, and should be provided primarily as a separate health or nutrition subject. At a minimum, 10 hours should be provided to support an increase in nutrition knowledge.
- specify that the selected nutrition education curricula teach skills focused on behavior, or be participatory. The lessons should encourage experiential learning (e.g., menu planning, food preparation, gardening) that builds knowledge, skills, attitudes, and behaviors that promote healthy food choices in a positive way. The curricula should also be based on state-of-the-art nutrition education methods that use many of the behavioral-change techniques used in other health education domains.
- address integration of nutrition education into other subjects, besides health education, as a supplement to a core health or nutrition education program;
- link nutrition and physical activity, stressing the importance of combining regular physical activity with sound nutrition as part of a healthy lifestyle. Physical education classes, in turn, should include guidance in food selection. The model content standards for physical education address nutrition for improving health and performance in the Overarching Standard 3 in kindergarten through grade eight and Overarching Standard 2 in high school.
- adopt a Coordinated School Health approach to supporting nutrition education and well-being;
- require provision of staff training in nutrition education and staff wellness. Ten hours of annual professional development is highly recommended.
- require the use of the cafeteria as a learning laboratory to apply critical-thinking skills. It encourages linkages between the classroom and cafeteria, including nutrition education, being provided during meal and snack times.
- include youth input and leadership;
- identify ways to extend nutrition education into after-school programs;
- outline a plan to coordinate and extend nutrition education beyond the school environment, including to families, and to coordinate with the larger school community, involving community groups for input, resources, and delivery;
- include ongoing evaluation of the effectiveness of the nutrition education program, including assessment of student learning and a process for making changes to improve the effectiveness of instruction.

#### 4. Review the local school wellness policy with a checklist

The following checklist, adapted with permission from WellSAT at <http://www.wellsat.org> (accessed August 25, 2011), can be used to assess the nutrition education components of a district’s local school wellness policy. This checklist can help identify strengths of the policy and areas where the policy could be more definitive. After evaluation, it is important to continually align the implementation of nutrition education with the language in the policy, working toward the most effective nutrition education program and the clearest, most enforceable wellness policy. This effort will enhance the sustainability of the nutrition education program.

Category	Assessment Guidance
<p><b>1. Provides nutrition education for each grade level.</b></p> <p><i>For this item, integrating nutrition education into other subjects beyond health education does not qualify for “vague and/or suggested” or “meets or exceeds expectations.”</i></p>	<p><b>Not Mentioned</b></p> <ul style="list-style-type: none"> <li>• Mentions “standards-based nutrition” without mentioning curriculum/program.</li> <li>• Addresses a “wellness curriculum” or health education curriculum without including nutrition/healthy eating as part of the curriculum components.</li> </ul>
	<p><b>Vague and/or Suggested</b></p> <p>It describes general health curriculum for “K–12” or “all levels,” and/or is unclear if each grade will receive nutrition education.</p> <p><b>Example:</b></p> <ul style="list-style-type: none"> <li>• “Enable students, through a comprehensive curriculum, to acquire the knowledge and skills necessary to make healthful food choices for a lifetime.” (Unclear whether nutrition education is actually taught at each grade level.)</li> <li>• “Nutrition lessons should be integrated into the curriculum and the health education program.”</li> </ul>
	<p><b>Meets or Exceeds Expectations</b></p> <p>The policy clearly indicates that the school district has a nutrition education curriculum in each grade and specifies the number of hours and/or lessons to be taught.</p> <p><b>Example:</b> “Nutrition topics shall be integrated within the comprehensive health education curriculum and taught at every grade level (K–12) for a minimum of 10 lessons per year.”</p>

Category	Assessment Guidance
<p><b>2. Nutrition education teaches skills that are behavior-focused.</b></p>	<p><b>Not Mentioned or Addresses Only Knowledge Acquisition</b></p>
	<p><b>Vague and/or Suggested</b></p> <p>The policy has any of the following features:</p> <ul style="list-style-type: none"> <li>• Suggests skill-based nutrition education.</li> <li>• Mentions but does not require specific behavioral skills.</li> <li>• Suggests skill-based health education outside the nutrition education sections of the policy.</li> </ul> <p><b>Example:</b> “All students should have the skills necessary to make nutritious food choices.”</p>
	<p><b>Meets or Exceeds Expectations</b></p> <p>It is clear that the nutrition education curriculum is skill-based and behavior-focused, and includes hands-on and/or experiential activities.</p> <p><b>Example:</b></p> <ul style="list-style-type: none"> <li>• “Students will receive nutrition education that fosters the adoption and maintenance of healthy eating behaviors.”</li> <li>• “Activities that build goal setting and decision making skills to promote self-management related to diet, physical activity, and safe food handling will be included in nutrition education.”</li> </ul>

Category	Assessment Guidance
<p>3. Nutrition education curricula adhere to the latest USDA Dietary Guidelines, science-based nutrition research, and evidence-based instructional strategies.</p>	<p><b>Not Mentioned</b></p>
	<p><b>Vague and/or Suggested</b></p> <p>The policy encourages the district to use nutrition education curricula or materials that are based on current science or research.</p> <p><b>Example:</b> "Nutrition education curricula should be based on current research."</p>
	<p><b>Meets or Exceeds Expectations</b></p> <p>The policy has language that requires schools to use science-based curriculum and instructional strategies known to be effective based on evidence.</p> <p><b>Example:</b> "Schools will use district-approved nutrition education curricula that are based on scientifically accurate nutrition content and the current USDA Dietary Guidelines. Curricula will use instructional strategies that incorporate experiential learning opportunities such as taste testing, cooking demonstrations, tours of farmers markets, and school gardens."</p>
<p>4. Requires a standards-based, sequential nutrition education program that meets health education content standards and/or nutrition education standards or competencies.</p>	<p><b>Not Mentioned</b></p>
	<p><b>Vague and/or Suggested</b></p> <p><b>Example:</b> "Nutrition education should be standards-based."</p>
	<p><b>Meets or Exceeds Expectations</b></p> <p>The policy wording requires nutrition education to be part of a comprehensive health education curriculum, based on health education content standards, or as a separate subject, based on health education content standards and/or nutrition standards.</p> <p><b>Example:</b> "Nutrition education shall be part of a sequential, comprehensive health education program in accordance with the <i>Health Education Content Standards for California Public Schools</i>."</p>

Category	Assessment Guidance
<p><b>5. Links nutrition education with the school food environment.</b></p>	<p><b>Not Mentioned</b></p>
	<p><b>Vague and/or Suggested</b></p> <p><b>Example:</b> “The entire school environment, not just the classroom, should be aligned with healthy school goals to positively influence a student’s understanding, beliefs, and habits as they relate to good nutrition and regular physical activity.”</p>
	<p><b>Meets or Exceeds Expectations</b></p> <p>The policy requires that nutrition education be integrated into the larger school environment in concrete ways.</p> <p><b>Example:</b> “The nutrition education program shall work with the school meal program to develop school gardens and use the cafeteria as a learning laboratory.”</p>
<p><b>6. Encourages staff members to be role models for healthy behaviors.</b></p>	<p><b>Not Mentioned</b></p>
	<p><b>Vague and/or Suggested</b></p> <p>The policy suggests that staff members model healthy behavior.</p> <p><b>Example:</b> “Each school in the district should encourage staff to model . . .”</p>
	<p><b>Meets or Exceeds Expectations</b></p> <p>The policy requires support for staff members to model healthy behavior and/or requires staff development in health.</p> <p><b>Example:</b> “Staff will receive 10 hours of professional development each year to help them model healthy eating and physical activity as a valuable part of daily life.”</p>

Category	Assessment Guidance
<p>7. Specifies <b>how</b> the district will engage families to provide information <b>and/or</b> solicit input to meet district wellness goals (e.g., through a Web site, e-mail, parent conferences, or events).</p>	<p><b>Not Mentioned</b></p>
	<p><b>Vague and/or Suggested</b></p> <p>The policy has any the following characteristics:</p> <ul style="list-style-type: none"> <li>• Methods are vague.</li> <li>• Specific methods are mentioned but not required.</li> <li>• Specific methods are mentioned, but it is unclear if the school will engage families.</li> </ul> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• “Nutrition information and links to relevant resources in the community should be provided to families through newsletters, publications, health fairs, and other channels.”</li> <li>• “Feedback from parents should be encouraged through stakeholder meetings.”</li> </ul>
	<p><b>Meets or Exceeds Expectations</b></p> <p>The policy is clear that the district or schools will engage families and names specific methods. Even if it is unclear that each method named will be used, if it requires engagement, rate as meets or exceeds expectations.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• “Nutrition education will be provided to parents through hand-outs, the school Web site, articles, and information provided in district or school newsletters, presentations that focus on nutrition and healthy lifestyles, and any other appropriate means available to reach parents.”</li> <li>• “The school will consider students’ needs in planning for a healthy school nutrition environment. Students will be asked for ideas and feedback through the use of student surveys, and attention will be given to their comments.”</li> <li>• “The food service director will be available to speak with parents during open house.”</li> <li>• “Parents will be provided with the opportunity to give feedback on wellness goals.”</li> </ul>

Category	Assessment Guidance
<p><b>8. Specifies marketing to promote healthy choices.</b></p>	<p><b>Not Mentioned</b></p>
	<p><b>Vague and/or Suggested</b></p> <p><b>Example:</b> “It is recommended that organizations operating concessions at school functions market healthy food choices at a lower profit margin to encourage student selection.”</p>
	<p><b>Meets or Exceeds Expectations</b></p> <p>Posters show pricing structures, and other specific details are required.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• “Schools shall label/mark available healthy food items so students know which items are healthy.”</li> <li>• “The healthiest choices, such as salads and fruits, will be prominently displayed in the cafeterias to encourage students to make healthy choices.”</li> </ul>
<p><b>9. Specifies restricting marketing of unhealthy choices.</b></p>	<p><b>Not Mentioned</b></p>
	<p><b>Vague and/or Suggested</b></p> <p>The policy suggests restrictions or is weakened by exceptions such as time, location, or a principal’s discretion.</p> <p><b>Example:</b> “Advertisement of foods with minimal nutritional value is strongly discouraged on school grounds at the principal’s discretion.”</p>
	<p><b>Meets or Exceeds Expectations</b></p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• “Education materials shall be free of brand names and illustrations of unhealthy foods.”</li> <li>• “Soft-drink logos are not allowed on school materials or on school property.”</li> </ul>

Category	Assessment Guidance
<p><b>10. Establishes an advisory committee to address health and wellness that is ongoing beyond policy development.</b></p>	<p><b>Not Mentioned</b></p>
	<p><b>Vague and/or Suggested</b></p> <p>The idea of a committee is suggested, and/or it is not clear whether the committee will be ongoing.</p> <p><b>Example:</b> "A wellness policy committee should be formed in district XYZ."</p>
	<p><b>Meets or Exceeds Expectations</b></p> <p>Committee is required and clearly ongoing.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• "The Nutrition and Physical Activity Advisory Council shall include (stakeholders) and shall meet a minimum of two times annually to monitor and evaluate the implementation of the policy."</li> <li>• "The school district will create or strengthen school health councils to develop, monitor, review, revise, and advise on nutrition and physical activity policies."</li> </ul>

## Planning for Implementation

This overview of the planning steps for nutrition instruction in schools was originally developed as a guide for the Network for a Healthy California project coordinators working with school-based programs. The priorities of the county office of education and the school district may differ from the plan. However, in most settings, these basic steps will help build school relationships, communication, and nutrition education programs that are most likely to succeed and be sustained.

Figure 1 depicts the process for planning nutrition instruction.



**Figure 1. Overview of Instructional Planning Process**

## Steps for Instructional Planning

The steps in Figure 1 are described in more detail below.

### 1. Prepare and Develop a Nutrition Instructional Plan

#### a. Review the district's or school's local wellness policy

Evaluate the nutrition education component of the local school wellness policy to determine the requirements for nutrition education.

If possible, participate on the district's wellness committee or a school site council to support the implementation of the nutrition instructional plan. Committees provide an avenue for making recommendations for the wellness policy that relate to nutrition education.

#### b. Become familiar with instructional guidance documents

Review the HECS and the nutrition competencies for guidance on grade-level expectations. The HECS and the nutrition competencies are described in section I, "Nutrition Competencies."

#### c. Understand the district's and school's goals and needs

Before developing an instructional plan, consider how the plan will fit with the district's and school's instructional process. Meet with the curriculum director to develop a relationship. Discuss areas of mutual support for student success and well-being. Some suggested activities follow:

- Become familiar with the district's adopted curriculum for English–language arts, math, science, and health.
- Become familiar with the district's instructional planning process and tools (e.g., pacing guides) for the grade levels you are targeting.
- Identify schools or grades already teaching nutrition education and those most likely to become partners in implementation.
- Discuss plans for sequential, developmentally appropriate instruction that targets nutrition behavior change.
- Identify the resources needed, potential costs, and options for funding.
- Identify potential professional development and training opportunities that support nutrition instruction.
- Determine key teachers and staff members to help develop and implement the nutrition instructional plan. Identify key actions.

Regardless of whether nutrition education is offered as its own subject or integrated into other subjects, a pacing-guide

review will help identify the best time for offering nutrition education.

Summarize district priorities and recommendations and select priority HECS and nutrition competencies to cover at each grade level. Then choose resources to include in the instructional plan. A number of recommended curricula and materials are presented in section II (see appendix A for descriptions of the resources).

Depending on the plan, a nutrition education program can be offered as a separate subject or as a unit within a subject, or can be integrated into other subject areas.

Meet with the curriculum director, key teachers, and others to review the plan and strengthen collaboration through regular communication.

### Sample Strategy for Planning Nutrition Instruction Themes

The following example of a classroom plan incorporates nutrition education competencies into the school year.

Season	Topic	Examples of Subtopics	Nutrition Competencies
Summer/start of school year	Nutrition basics	Basic nutrition, food safety	1, 2, 4
Fall	Influences on food choices	Culture, family, holidays and celebrations	1, 6, 7
Winter	Consumer skills	Reading labels, decision making, goal setting	1, 4, 5
Spring	Life cycle, food handling, food systems	Guidelines for life stages, cooking, gardening, California agriculture	1, 3, 8

## 2. Design Grade-Level Plans and Cultivate Learning Communities

The next step in planning a nutrition instructional plan is to fine-tune the plan for each grade level and for the teachers.

### a. Identify school and district readiness

Determine the readiness level by identifying advocates and by assessing the level of school-based and community support for the instructional plan. Identify schools and staff to implement the plan; this may involve one or more schools depending on their readiness.

## **b. Support teachers in developing grade-level instructional plans**

Ideally, a lead teacher for each grade should be identified. Ensure that meetings for each grade are scheduled to provide an orientation and sufficient time for teachers to complete the review and alignment for their grade level. Support the teachers in tracking their specific grade-level instruction and month-by-month lessons and assessment strategies. Ask teachers to make recommendations for training, regular meetings, and support for implementation.

### **3. Develop and Implement a Staff Training Plan**

The instructional plan should include training, ongoing support, technical assistance, resources, and methods for monitoring the implementation of training.

To design and provide staff training, be sure to assess the needs of the learners in areas such as nutrition knowledge, HECS and nutrition competencies, and nutrition education delivery and learner assessment. The professional development assessment will guide the determination of training goals, objectives, methods, and schedule.

Promote the training; include the lead teachers in the process to ensure they agree to the teacher training. Invite child nutrition staff, health services staff, and other health-related staff as appropriate. Invite community partners and others who have resources to share and collaborate with teachers.

Schedule and deliver staff training.

After the training, check in with teachers to see if they need other technical assistance or support. Some teachers may prefer one-on-one help, others may like e-mail, and some may prefer resources to be given to them.

### **4. Implement the Nutrition Instructional Plan and Provide Technical Assistance**

To help tailor technical assistance during the implementation, visit classrooms and observe teachers presenting lessons from selected nutrition education materials.

Participate in the district's professional learning communities.

Solicit feedback in a variety of ways: e-mails, phone calls, hallway conversations, surveys, and discussions at staff meetings. Students can also be a valuable source of feedback.

### **5. Promote Nutrition Messages and Build School and Community Support**

Connections to the cafeteria, parents, peers, and school environment can reinforce nutrition instruction and messages. Some

resources are provided in appendix B, “Resources for Enhancing Nutrition Education.”

## **6. Refine the Nutrition Instructional Plan, Nutrition Messages, and School and Community Support**

Review the feedback from staff training sessions, implementation, parents, and peers, and assess the impact of connections to the school environment.

Compare the proposed implementation and pacing guides with the actual provision and curriculum maps.

If possible, include formal evaluation. One method is to evaluate the overall implementation of the nutrition education provided. Appendix D contains an evaluation checklist.

As the teacher teams for each grade level reconvene, the feedback can be used to revise the instructional plan.

Finally, revisit the nutrition education component of the local school wellness policy. Make recommendations for strengthening the policy or for updating it to reflect current procedures.

### **Bibliography**

Association for Supervision and Curriculum Development. *Overview of Curriculum Mapping*. Alexandria, VA: ASCD, 2001.

Wiggins, G., and J. McTighe. *Understanding by Design*. Columbus, OH: Merrill, Prentice Hall, 2001.