This is Section I 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.

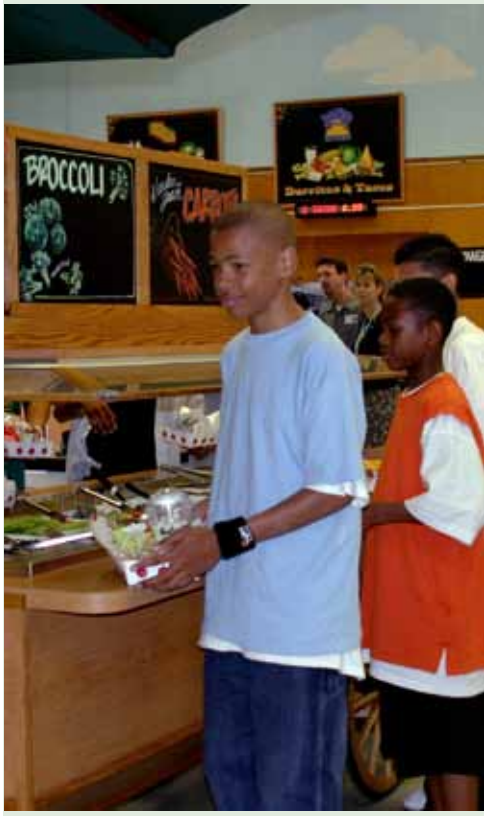
I. Nutrition Competencies

About the Competencies

The nutrition competencies present a comprehensive and grade-specific structure for providing instruction in nutrition education in California classrooms.

The nutrition competencies define, from kindergarten through grade twelve, the knowledge in nutrition and the skills students need to make healthy food choices for well-being and success in school and throughout their lives. The nutrition competencies also provide a framework of actions for good health and for accessing accurate and current nutrition information.

The competencies are intended to assist educators in designing, selecting, implementing, and evaluating nutrition curriculum responsive to local priorities and needs. Those who plan nutrition education can also use the competencies: curriculum directors, nutrition education specialists, and lead teachers. The competencies are also useful for those supporting classroom instruction, such as school administrators, school nutrition program directors, school nurses, health educators, physical education specialists, parents, and the local school and health community.



Relationship to the Health Education Content Standards

The Health Education Content Standards (HECS) represent a consensus of the essential health knowledge and skills that students should have at specific grade levels, from kindergarten through grade twelve, in California's public schools. The full HECS document is posted on the California Department of Education Web site at http://www.cde.ca.gov/be/st/ss/documents/healthstandmar08.pdf (accessed July 22, 2011).

The scope of the HECS is broader than that of the nutrition competencies. The HECS define the essential skills and knowledge that

all students need in order to become literate in the following health content areas:

- Nutrition and Physical Activity
- Growth, Development, and Sexual Health
- Injury Prevention and Safety
- Alcohol, Tobacco, and Other Drugs
- Mental, Emotional, and Social Health
- Personal and Community Health

The content areas are emphasized at different grade levels. The following table summarizes the minimum recommended grade-level assignments for each of the six content areas:

Health Education, by Grade Level

Grade-Level Emphasis	Nutrition and Physical Activity	Growth, Development, and Sexual Health		Injury Prevention and Safety	Alcohol, Tobacco, and Other Drugs	Mental, Emotional, and Social Health	Personal and Community Health
		Growth and Development	Sexual Health				
Kindergarten	●	●		●	●	●	●
Grade 1		●		●			
Grade 2	●				●	●	
Grade 3		●				●	●
Grade 4	●			●	●		
Grade 5	●	●	●				●
Grade 6				●	●	●	
Grade 7 and 8	●	●	●	●	●	●	●
High School (Grades 9 Through 12)	●	●	●	●	●	●	●

Nutrition and Physical Activity Content Area of the HECS

The nutrition competencies include all of the standards identified in the Nutrition and Physical Activity content area of the HECS, but they also include other benchmarks of learning, adding specificity to the following core nutrition concepts that are not fully addressed in the HECS:

- Energy expenditure and balance
- Nutrition needs throughout the human life cycle
- Physiological processes in digestion, absorption, and metabolism of nutrients
- Nutrition and food-related careers

- Interactions among nutrition science, ecosystems, agriculture, and social systems that affect health, including local, national, and global perspectives
- Body image and accepting body size differences

Some of these topics are addressed in other content areas of the HECS to varying degrees. For example, body image related to body size is addressed in these content areas: (1) Growth, Development, and Sexual Health; and (2) Mental, Emotional, and Social Health.

The Nutrition Competencies Chart which begins on page 11, shows the alignment of the nutrition competencies with California's HECS in the Nutrition and Physical Activity content area.

Relationship to the Health Framework

The *Health Framework for California Public Schools* (California Department of Education 2003) includes a broad outline of health education for kindergarten through grade twelve, focusing on guidance for developing a Coordinated School Health program in schools: "The major goal of this framework is to describe health education and school health promotion strategies that will help children and youths become health-literate with a lifelong commitment to healthy living" (pages 2–3). In California, the *Health Framework* preceded the development and adoption of health education standards in 2008 and does not reflect California's HECS.

Adoption of Health Instructional Materials

The California State Board of Education adopts health instructional materials for students in kindergarten through grade eight. The most recent adoption was in 2004, and the list of the four state-adopted programs can be found on the California Department of Education's health education Web page at http://www.cde.ca.gov/ci/he/im/ (accessed July 22, 2011). For students in grades nine through twelve, local school districts adopt instructional materials. The Web page also has the criteria used to evaluate instructional materials in the 2004 health adoption. These criteria can serve as guidance for local districts in the selection and adoption of health education materials.

Like the *Health Framework,* the nutrition competencies can be used to guide the development of curricular materials and textbooks. The competencies are more detailed than the *Health Framework* in the area of nutrition. Therefore they can be used to select existing nutrition curricula for use in the classroom and to benchmark learning in nutrition education. In addition, the current nutrition competencies are aligned with the HECS, while the *Health Framework* is not (as mentioned above).

Key Terms

In planning curriculum materials and learning activities for students, educators look to several resources, defined as follows:

Content standards describe what students are expected to know and be able to do at a grade level. Standards are tools for educators to develop, select, and evaluate curriculum and to assess student achievement. Standards provide a common language and serve as the basis for curriculum frameworks, learning assessments, and instructional resources and materials. However, standards do not prescribe methods of instruction. The California State Board of Education approves all state academic standards.

Curriculum frameworks are blueprints for implementing approved content standards. Frameworks guide the development of curricular materials, providing more background information on a curricular subject. Frameworks specify the topics to emphasize at each grade level.

Competencies comprise the specification of knowledge and skills and the application of that knowledge and those skills to the standard of required performance. Competencies for academic subjects go beyond the content standards to outline comprehensive, sequential, and **grade-level expectations** for student learning. Like standards, they do not prescribe methods of instruction. However, they provide specific expectations at every grade grouping and show the sequence of learning as it is reinforced over several grade levels.

Background of the Nutrition Competencies

Nutrition competencies were first developed in the 1970s by the California Department of Education and have gone through several revisions. The 2010 version featured in this guide was reviewed and revised by panels of stakeholders including teachers, curriculum directors, school administrators, school nutrition directors, nutrition educators, health education specialists, environmental educators, physical education teachers, school nurses, other academic content area experts, physicians, and other health professionals. Teachers from school districts throughout California also participated in the review process. The 2010 revision focuses on aligning the California nutrition competencies with the new HECS, which were adopted by the State Board of Education in March 2008.

Guidelines for Use of the Nutrition Competencies Chart

Eight **overarching nutrition competencies** correspond to the eight overarching health education content standards (HECS). The first overarching nutrition competency, Essential Nutrition Concepts, comprises six subcompetencies that represent key content areas for nutrition.

The nutrition competencies are described for each of the following **grade-level clusters:** kindergarten, grades one and two, grades three and four, grades five and six, grades seven and eight, and grades nine through twelve. Each grade-level cluster matches one of the grade-level assignments for the Nutrition and Physical Activity content area in California's HECS. Under each overarching nutrition competency (and for the subcompetencies in Essential Nutrition Concepts), the related HECS are listed, identified with a ▲ symbol, and cross-referenced to the specific, numbered HECS. Additional nutrition benchmarks, where appropriate, are included under each grade-level cluster, which broadens the nutrition scope beyond the HECS.

Effective Use of the Nutrition Competencies Chart

The nutrition competencies can be used, along with related benchmarks or expectations, to determine the scope and sequence of a nutrition education program and to design or select instructional materials or to do both. The nutrition competencies are a useful tool for ensuring that instruction is developmentally appropriate and based on nutrition education research. The following steps can help curriculum planners and teachers make effective use of the competencies.

Step 1: Determine priorities

Review the information in the competencies for the targeted grade level to determine the appropriate nutrition concepts and skills to emphasize in the classrooms.

Step 2: Identify curriculum

Identify the curricular and assessment resources to facilitate and support student learning. This guide contains an annotated list of recommended curricula and supplemental nutrition materials. The annotation includes the specific nutrition competencies that each resource targets. Appendix A contains descriptions of those resources. Additional resources include California state-adopted health textbooks (http://www.cde.ca.gov/ci/he/im/), the California Healthy Kids Resource Center (http://www.californiahealthykids.org), and the California After School

Resource Center (http://www.californiaafterschool.org [accessed August 25, 2011]).

The Health Education Curriculum Analysis Tool (HECAT) is an additional resource that can help school districts, schools, and others conduct a clear, complete, and consistent analysis of health education curricula based on the National Health Education Standards and the Centers for Disease Control and Prevention's Characteristics of Effective Health Education Curricula. The HECAT can assist schools in the selection or development of appropriate and effective health education curricula and improve the delivery of health education. The HECAT can also be customized to meet local community needs and conform to state-adopted health education content standards, as well as the curriculum requirements of the state or school district. Go to http://www.cdc.gov/healthyyouth/HECAT/index.htm (outside source) (accessed July 22, 2011).

Step 3: Evaluate materials

Evaluate selected instructional materials against the nutrition competencies. When curricular materials align with the nutrition competencies, staff members can feel confident that their nutrition instructional plans also align with California's health education standards in the Nutrition and Physical Activity content area.

Step 4: Select assessments

Identify ways to assess student learning in nutrition. There is a bank of field-tested assessment items available to California teachers through the California Health Education Assessment Project (HEAP).

Reinforcement Across Grade Levels

Specific expectations or benchmarks are listed for each overarching nutrition competency at each grade-level cluster, kindergarten through high school. Similar expectations may be listed under several grade clusters. This pattern of repetition demonstrates the importance of emphasizing many concepts and skills over several grades, rather than teaching the material just once. Teachers and curriculum leaders can choose how to accomplish this over time. The goal is to assess mastery of the competency by the time students complete the last grade in the cluster.

Integrating Nutrition into Other Subjects

Ideally, nutrition education should be taught as part of the school's health education curriculum or as a separate subject to ensure that nutrition is taught in a sequential and comprehensive way. When nutrition is the focus, teachers can adequately prepare,

schedule instructional time, work on skill building and behavior change, and give attention to the scope and sequence of basic nutrition concepts and skills.

An interdisciplinary approach should complement, not replace, sequential health and nutrition education within a school curriculum. When nutrition education is also reinforced in other content areas, children have more consistent exposure to nutrition concepts and messages. The exclusive use of an interdisciplinary approach, though, can sacrifice key elements of an effective nutrition education program.

Nutrition concepts are easily integrated into a variety of content areas, such as English–language arts, math, science, chemistry, social science, family and consumer science, and physical education. For example:

- **English–language arts:** Use literature that has appropriate health themes, including nutrition picture books. Highlight nutrition messages in other assigned reading, assign the writing of nutrition-related essays on specific themes, and analyze literature such as articles promoting products or dieting approaches.
- **Mathematics:** Calculate the nutritional value of foods, analyze nutrients, read food labels, and calculate the contribution of daily nutrients in percentages, graph class food preferences, and expand recipes.
- **Science:** Identify the chemical compounds in foods, study the growth of plants, and examine the microscopic structure of plant cells and animal fat cells.
- **Chemistry:** Determine the chemical changes in recipe ingredients, the chemical regulation of hormones and the effect on digestion and absorption, and the impact of nutrition-influenced chronic diseases on the chemical functioning of the body.
- **Social science:** Research food customs of other countries or time periods, create a healthy menu based on local food preferences, and grow a garden with a theme based on a culture or a time period.

A Child's Garden of Standards, a California Department of Education publication, shows the relationship of garden-based education activities selected from several published educational materials to specific academic content standards for grades two through six in science, history–social sciences, mathematics, and English–language arts. The document is located at http://www.cde.ca.gov/ls/nu/he/nutredres.asp (accessed July 22, 2011).

Additional resources for integration can be found in appendix A, "Descriptions of Recommended Instructional Resources."

"I had never seen any type of framework for nutrition nor was I aware nutritional standards existed for first grade. I was surprised at how well the [competencies] are structured. As I read through, I was able to think of many nutrition activities that can easily be integrated into my daily routine and curriculum. I think a greater effort needs to be made to ensure teachers are aware of these standards."

—California teacher

Nutrition Competencies Chart

Overarching Health Education Content Standard		Overarching Nutrition Competency
1	**Essential health concepts:** Comprehend essential concepts related to enhancing health.	**Essential nutrition concepts:** Know the relationships among nutrition, physiology, and health.
2	**Analyzing health influences:** Demonstrate the ability to analyze internal and external influences that affect health.	**Analyzing nutrition influences:** Analyze internal and external factors influencing food choices and health outcomes.
3	**Accessing valid health information:** Demonstrate the ability to access and analyze health information, products, and services.	**Accessing valid nutrition information:** Demonstrate the ability to access and analyze nutrition information, products, and services and analyze the accuracy and validity of nutrition claims.
4	**Interpersonal communication:** Demonstrate the ability to use interpersonal communication skills to enhance health.	**Interpersonal communication about nutrition:** Demonstrate the ability to use interpersonal communication skills to optimize food choices and health outcomes.
5	**Decision making:** Demonstrate the ability to use decision-making skills to enhance health.	**Decision making for nutrition choices:** Demonstrate the ability to use decision-making skills to optimize food choices and health outcomes.
6	**Goal Setting:** Demonstrate the ability to use goal-setting skills to enhance health.	**Goal setting for nutrition:** Demonstrate the ability to use goal-setting skills to enhance nutrition and health.
7	**Practicing health-enhancing behaviors:** Demonstrate the ability to practice behaviors that reduce risk and promote health.	**Practicing nutrition-enhancing behaviors:** Demonstrate the ability to practice nutrition-related behaviors that reduce risk and promote health.
8	**Health promotion:** Demonstrate the ability to promote and support personal, family, and community health.	**Nutrition promotion:** Demonstrate the ability to promote and support a sustainable, nutritious food supply and healthy lifestyles for families and communities.

1. Overarching Nutrition Competency: Essential Nutrition Concepts

All students will know the relationships among nutrition, physiology, and health.

1a. Know the six nutrient groups and the functions.

Kindergarten	Grades 1–2	Grades 3–4	Grades 5–6	Grades 7–8	Grades 9–12
Identify the variety of foods of plant origin. Classify plant foods, such as fruits, vegetables, and grains. Identify the variety of foods of animal origin, such as eggs, fish, poultry, beef, and milk.	Describe the main functions of fat, carbohydrate, protein, vitamins, minerals, and water.	▲Identify and define key nutrients and their functions. (1.1.N)	Classify food products—of plant and animal sources—by the major nutrients they provide.	▲Identify nutrients and their relationships to health. (1.2.N) ▲Analyze the caloric and nutritional value of foods and beverages. (1.6.N) Name the key nutrients in each food group and investigate how the body uses these nutrients.	Classify nutrients into macronutrients and micronutrients. Explain how the Dietary Reference Intakes may be used to assess dietary quality. Define and analyze the functions of phytochemicals.

▲ = Health education content standard in the Nutrition and Physical Activity content area; the specific standard is indicated in parentheses.

1b. Know nutrition and health guidelines.

Kindergarten	Grades 1–2	Grades 3–4	Grades 5–6	Grades 7–8	Grades 9–12
▲Name a variety of healthy foods and explain why they are necessary for energy and good health. (1.1.N) ▲Identify a variety of healthy snacks. (1.2.N) Describe tools used to measure servings of food.	▲Classify various foods into appropriate food groups. (1.1.N) ▲Identify the number of servings of food from each food group that a child needs daily. (1.2.N) Identify actions key to feeling healthy and maintaining a healthy body. ▲Describe the benefits of drinking water in amounts consistent with current research-based health guidelines. (1.5.N) ▲Identify a variety of healthy snacks. (1.7.N) Identify physical activities that students can enjoy and sustain for 30 minutes every day.	▲State the recommended number of servings and serving sizes for different food groups. (1.2.N) Identify at least one key nutrient provided by recommended food groups. ▲Explain the importance of drinking plenty of water, especially during vigorous physical activity. (1.6.N) List recommendations for maintaining a healthy body and self-esteem.	▲Describe the food groups, including recommended portions to eat from each food group. (1.1.N) ▲Identify key components of the "Nutrition Facts" label. (1.2.N) ▲Explain why some food groups have a greater number of recommended portions than other food groups. (1.4.N) ▲Differentiate between more-nutritious and less-nutritious beverages and snacks. (1.6.N) ▲Explain the concept of eating in moderation. (1.7.N) Describe examples of how different cultures may meet dietary guidelines using a variety of foods.	Compare and contrast use of the current Dietary Guidelines for Americans and USDA food guide for planning healthy meals. Analyze the major nutritional benefits of specific plant and animal food products. ▲Analyze the harmful effects of engaging in unscientific diet practices to lose or gain weight. (1.9.N) ▲Explain how to use a body mass index (BMI) score as a tool for measuring general health. (1.13.N) ▲Explain that incorporating daily moderate or vigorous physical activity into one's life does not require a structured exercise plan or special equipment. (1.15.N) ▲Differentiate between physical activity and exercise and health-related and skill-related fitness. (1.16.N)	▲Distinguish between facts and myths regarding nutrition practices, products, and physical performance. (1.1.N) ▲Research and discuss the practical use of current research-based guidelines for a nutritionally balanced diet. (1.2.N) ▲Explain the importance of variety and moderation in food selection and consumption. (1.3.N) ▲Describe dietary guidelines, food groups, nutrients, and serving sizes for healthy eating habits. (1.4.N)

▲ = Health education content standard in the Nutrition and Physical Activity content area; the specific standard is indicated in parentheses.

1c. Know factors affecting energy balance.

Kindergarten	Grades 1–2	Grades 3–4	Grades 5–6	Grades 7–8	Grades 9–12
Recognize that we need food to provide energy. ▲Describe the benefits of active play and other physical activity. (1.3.N) Identify a form of physical activity that children enjoy at school and at home.	Describe how energy is obtained and expended during the day. Describe a variety of physical activities that will help keep children physically fit. ▲Identify opportunities outside of school for regular participation in physical activity. (1.8.N)	Explain reasons for the differences in the amount of food required by individuals. ▲Describe the benefits of moderate and vigorous physical activity. (1.7.N)	Define a calorie and describe how it is used by the body. Explain how energy is obtained and expended during physical activity.	▲Analyze the caloric and nutritional value of foods and beverages. (1.6.N) Recognize that different foods contain different amounts of energy, which is in the form of calories. Compare caloric values of food according to the percent of fat, protein, and carbohydrate they contain. ▲Identify ways to increase daily physical activity. (1.14.N)	Compare the calorie content of macronutrients and analyze the relationship between calorie intake and expenditure. ▲Describe the amounts and types of physical activity recommended for teenagers' overall health and for the maintenance of a healthy body weight. (1.13.N)

▲ = Health education content standard in the Nutrition and Physical Activity content area; the specific standard is indicated in parentheses.

1d. Describe how nutritional needs vary throughout the life cycle.

Kindergarten	Grades 1–2	Grades 3–4	Grades 5–6	Grades 7–8	Grades 9–12
Identify one reason people of different ages need different foods.	Describe some of the different food needs people have at different ages.	Describe generally the amounts and types of food people need at different ages.	Name five life stages and examples of special nutritional needs at each life stage. Explain the unique nutritional needs of preadolescents and compare these needs with other life stages.	Compare and contrast the specific nutritional needs at each life stage.	▲Describe nutrition practices that are important for the health of a pregnant woman and her baby. (1.7.N) Identify and compare foods that are rich in nutrients that are important for adolescent and adult health in a daily diet. Assess how age, gender, activity level, and other factors influence nutritional needs during each of the five life stages.

▲ = Health education content standard in the Nutrition and Physical Activity content area; the specific standard is indicated in parentheses.

1e. Identify the physiological processes in digestion, absorption, and metabolism of nutrients.

Kindergarten	Grades 1–2	Grades 3–4	Grades 5–6	Grades 7–8	Grades 9–12
Describe foods by using senses: taste, touch, sight, smell, and sound.	Explain that food is used and stored by our bodies to help us have energy for growing, learning, and activity.	Illustrate the pathway of food during the process of digestion.	▲Explain the relationship between the intake of nutrients and metabolism. (1.3.N) Examine the pathway of food and its conversion to energy during the process of digestion. Describe the physiological reasons for differences in nutritional needs at each life stage.	▲Describe the benefits of eating a variety of foods high in iron, calcium, and fiber. (1.7.N) Illustrate how the different body systems interact.	Analyze the physiological processes involved in the digestion, absorption, and metabolism of nutrients. Analyze the interaction of the different body systems and what happens when these systems do not function properly.

▲ = Health education content standard in the Nutrition and Physical Activity content area; the specific standard is indicated in parentheses.

1f. Explain the influence of nutrition and physical activity on health.

Kindergarten	Grades 1–2	Grades 3–4	Grades 5–6	Grades 7–8	Grades 9–12
▲Describe the benefits of being physically active. (1.3.N) ▲Recognize the importance of a healthy breakfast. (1.4.N) Recognize that eating healthy foods, such as vegetables and fruits, is beneficial for the body.	▲Discuss the benefits of eating a nutritious breakfast every day. (1.3.N) ▲List the benefits of healthy eating (including beverages and snacks). (1.4.N) ▲Explain how both physical activity and eating habits can affect a person's health. (1.9.N)	▲Describe the relationship between food intake, physical activity, and good health. (1.3.N) ▲Identify ways to increase and monitor physical activity. (1.8.N) Name and explain benefits of eating fruits and vegetables. Identify the benefits of eating whole grains. Name and explain two disadvantages of beverages high in sugar.	▲Describe the benefits of eating a nutritionally balanced diet consistent with current research-based dietary guidelines. (1.8.N) ▲Explain how good health is influenced by healthy eating and being physically active. (1.9.N) ▲Describe how physical activity, rest, and sleep are related. (1.10.N) ▲Identify physical, academic, mental, and social benefits of regular physical activity. (1.11.N)	▲Describe the short- and long-term impact of nutritional choices on health. (1.1.N) ▲Differentiate between diets that are health-promoting and diets linked to disease. (1.5.N) ▲Identify the impact of nutrition on chronic disease. (1.10.N) ▲Analyze the cognitive and physical benefits of eating breakfast daily. (1.11.N) ▲Explain the role of lifelong fitness activities in maintaining personal fitness, blood pressure, weight, and percentage of body fat. (1.15.N)	▲Describe the relationship between poor eating habits and chronic diseases such as heart disease, obesity, cancer, diabetes, hypertension, and osteoporosis. (1.5.N) ▲Describe the prevalence, causes, and long-term consequences of unhealthy eating. (1.8.N) ▲Explain various approaches to maintaining a healthy weight. (1.10.N) ▲Identify the causes, symptoms, and harmful effects of eating disorders. (1.11.N) ▲Explain why people with eating disorders need professional help. (1.12.N) ▲Analyze the harmful effects of using diet pills and anabolic steroids. (1.14.N) ▲Explain the physical, academic, mental, and social benefits of physical activity and the relationship between a sedentary lifestyle and chronic disease. (1.15.N)

▲ = Health education content standard in the Nutrition and Physical Activity content area; the specific standard is indicated in parentheses.

1g. Know principles of handling (growing, harvesting, transporting, processing, storing, and preparing) foods for optimal food quality and safety.

Kindergarten	Grades 1–2	Grades 3–4	Grades 5–6	Grades 7–8	Grades 9–12
Describe how to wash hands before handling food. Identify one way of safely preparing foods for eating. Name one way to store food that helps to keep it safe and fresh.	▲Describe how to keep food safe from harmful germs. (1.6.N) Identify how to safely use kitchen tools to prepare food. Explain why hand washing is important when preparing and eating food. Identify examples of foods that must be stored at cool temperatures, in the refrigerator or freezer. Describe how food is handled safely on its way from farm to table.	▲Identify how to keep food safe through proper food preparation and storage. (1.4.N) ▲Explain how food can contain germs that cause illness. (1.5.N) Explain what food-borne illnesses are and how those illnesses are contracted. Identify a variety of ways to prepare or include fruits, vegetables, and whole grains in daily meals and snacks.	▲Describe safe food handling and preparation practices. (1.5.N) Identify symptoms of food-borne illness. Describe ways to prevent food-borne illness. Identify the food temperature danger zone. Explain how food is transported from farm to table, focusing on maintaining nutritional quality. Identify examples of jobs related to food and nutrition.	▲Examine the health risks caused by food contaminants. (1.3.N) ▲Describe how to keep food safe through proper food purchasing, preparation, and storage practices. (1.4.N) ▲Identify ways to prepare food that are consistent with current research-based guidelines for a nutritionally balanced diet. (1.8.N) Identify careers associated with each phase of the food cycle.	▲Explain how to keep food safe through proper food purchasing, preparation, and storage practices. (1.6.N) Describe the advantages and disadvantages of food processing, including the effects on food quality, safety, nutrient content, and the environment. Compare and analyze food-related careers, such as jobs related to nutrition, dietetics, food technology, culinary arts, agricultural production, and food safety.

▲ = Health education content standard in the Nutrition and Physical Activity content area; the specific standard is indicated in parentheses.

1h. Consider the interactions among nutrition science, ecosystems, agriculture, and social systems that affect health, including local, national, and global perspectives.

Kindergarten	Grades 1–2	Grades 3–4	Grades 5–6	Grades 7–8	Grades 9–12
Describe what plants and animals need for growth. Identify edible parts of plants and trees.	Identify two ways that geographical factors influence food availability and quality. Identify factors that affect the availability of food, such as economics, location, and culture. Identify foods grown in different regions of California. Name one example of a healthy food item associated with a certain country or cultural group.	Identify foods grown in different regions of the state, the country, and the world and how some of those foods are produced. List examples of foods that are grown in California and in different regions of the United States. Describe the role of food webs within natural systems. Explain the concept of food security. Define nutrition science or explain what the science of nutrition includes.	Describe and illustrate the food cycle. Compare and contrast types of foods produced in specific regions of California and the United States. Describe the relationship between ecosystems and nutrition science. Analyze reasons why an abundance of food crops are grown in California. Recognize different food production systems, such as organic, sustainable, and conventional.	Explain two factors that influence the quality and quantity of food available locally, nationally, and globally. Describe how economics, social systems, and education impact the nutritional status of individuals. Examine the technological factors that help create the quality and quantity of food we need. Examine how local, national, and global factors influence the food cycle. Compare the different food production systems.	Explain how local, national, and global factors influence food intake. Analyze data to determine the local, national, and global influences on the quantity and quality of food. Identify how social conditions may influence food availability. Analyze the effectiveness of the different food production systems, such as organic, sustainable, and conventional. Describe the impact of agriculture on California's economy and how the state's budget influences agriculture.

▲ = Health education content standard in the Nutrition and Physical Activity content area; the specific standard is indicated in parentheses.

2. Overarching Nutrition Competency: Analyzing Nutrition Influences

All students will demonstrate the ability to analyze internal and external factors influencing food choices and health outcomes.

Kindergarten	Grades 1–2	Grades 3–4	Grades 5–6	Grades 7–8	Grades 9–12
Identify one influence on food choices. ▲Recognize that not all products advertised or sold are good for them. (2.1.N) State the purpose of food advertisements and commercials. Give one example of a favorite food custom or food choice on a special holiday. Identify one practice that makes mealtimes enjoyable. Compare the feelings of hunger and fullness.	▲Discuss how family, friends, and media influence food choices. (2.1.N) Report on one historical reason for making certain food choices. Describe three factors that influence personal food choices (seeing, smelling, and tasting). Describe how taste affects personal food choices. Describe body signals that tell people when they are hungry and when they are full.	▲Identify internal and external influences that affect food choices. (2.1.N) ▲Analyze advertising and marketing techniques used for food and beverages. (2.2.N) Describe the effects of peer influence and social environments on food choices. Identify examples of a food item associated with a neighborhood, city, state, or country. ▲Identify internal and external influences that affect physical activity. (2.3.N)	▲Describe internal and external influences that affect food choices and physical activity. (2.1.N) ▲Recognize that family and cultural influences affect food choices. (2.2.N) Compare food choices from different cultures. Investigate historical reasons for making certain food choices. ▲Describe the influence of advertising and marketing techniques on food and beverage choices. (2.3.N) Identify how heredity may influence body size and shape. Identify how physical and psychological factors affect taste. Discuss ways to respect an individual's personal decisions about food choices.	▲Describe the influence of culture and media on body image. (2.1.N) ▲Evaluate internal and external influences on food choices. (2.2.N) Compare experiences of making nutritious food choices within a variety of social settings. Illustrate how food choices from different cultures meet nutrient needs. Identify how emotions influence food choices and how food choices may affect emotions. ▲Analyze the impact of nutritional choices on future reproductive and prenatal health. (2.3.N) ▲Analyze the influence of technology and media on physical activity (and food choices). (2.4.N) Identify examples of barriers to making healthy food and fitness choices.	▲Evaluate internal and external influences on food choices. (2.1.N) Evaluate successful marketing and advertising techniques. ▲Assess personal barriers to healthy eating and physical activity. (2.2.N) ▲Distinguish between facts and myths about nutrition practices, products, and physical performance. (2.3.N) ▲Analyze the impact of nutritional choices on future reproductive and prenatal health. (2.4.N) ▲Analyze the impact of various influences, including the environment, on eating habits and attitudes toward weight management. (2.5.N) ▲Analyze internal and external influences on physical activity. (2.6.N) Explain how factors such as geography, transportation, and world trade agreements influence food choices.

▲ = Health education content standard in the Nutrition and Physical Activity content area; the specific standard is indicated in parentheses.

3. Overarching Nutrition Competency: Accessing Valid Nutrition Information

All students will demonstrate the ability to access and analyze nutrition information, products, and services to analyze the accuracy and validity of nutrition claims.

Kindergarten	Grades 1–2	Grades 3–4	Grades 5–6	Grades 7–8	Grades 9–12
Demonstrate the difference between good advice about food choices and advertisements for products, such as high-sugar cereals. Identify trusted adults who can give accurate nutrition information.	▲Identify resources for reliable information about healthy foods. (3.1.N) Identify how to recognize credible nutrition information.	▲Identify resources for valid information about safe and healthy foods. (3.1.N) ▲Use food labels to determine nutrient and sugar content. (3.2.N)	▲Locate age-appropriate guidelines for eating and physical activity. (3.1.N) ▲Interpret information provided on food labels. (3.2.N)	▲Distinguish between valid and invalid sources of nutrition information. (3.1.N) ▲Evaluate the accuracy of claims about dietary supplements and popular diets. (3.2.N) ▲Describe how to assess nutrition information about foods offered in restaurants in one's community. (3.3.N) ▲Identify places where youths and families can be physically active. (3.4.N) ▲Identify trusted adults in one's family, school, and community for advice and counseling regarding healthy eating and physical activity. (3.5.N)	Describe criteria for assessing the validity of nutrition information. ▲Access sources of accurate information about safe and healthy weight management. (3.1.N) ▲Evaluate the accuracy of claims about food and dietary supplements. (3.2.N) ▲Describe how to use nutrition information on food labels to compare products. (3.3.N) Analyze Nutrition Facts food labels to compare calorie and macronutrient content. ▲Evaluate the accuracy of claims about the safety of fitness products. (3.4.N) ▲Describe community programs and services that help people gain access to affordable, healthy foods. (3.5.N) ▲Describe internal and external influences that affect physical activity. (3.6.N)

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4. Overarching Nutrition Competency: Interpersonal Communication about Nutrition

All students will demonstrate the ability to use interpersonal communication skills to optimize food choices and health outcomes.

Kindergarten	Grades 1–2	Grades 3–4	Grades 5–6	Grades 7–8	Grades 9–12
▲Explain how to ask family members for healthy food options. (4.1.N) Say or show how to politely say no when refusing food when full or how to indicate preferences for some foods.	▲Demonstrate how to ask family members for healthy food options. (4.1.N) Demonstrate effective ways to say no to more food when full or how to indicate preferences for some foods. Demonstrate the ability to respect differences in body shapes and sizes.	▲Demonstrate effective communication skills to ask for healthy food choices. (4.1.N) Demonstrate effective ways to say no to more food when full or how to communicate the reasons for a food preference. Demonstrate the ability to respect differences in body shapes and sizes.	▲Use communication skills to deal effectively with influences from peers and media regarding food choices and physical activity. (4.1.N)	▲Demonstrate the ability to use effective skills to model healthy decision making and prevent overconsumption of foods and beverages. (4.1.N) ▲Practice effective communication skills with parents, guardians, or trusted adults regarding healthy nutrition and physical activity choices. (4.2.N)	▲Analyze positive strategies to communicate healthy eating and physical activity needs at home, at school, and in the community. (4.1.N) ▲Practice how to refuse less-nutritious foods in social settings. (4.2.N) Describe examples of communication techniques to ensure safe, healthy foods are available in our environment.

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5. Overarching Nutrition Competency: Decision Making for Nutrition Choices

All students will demonstrate the ability to use decision-making skills to optimize food choices and health outcomes.

Kindergarten	Grades 1–2	Grades 3–4	Grades 5–6	Grades 7–8	Grades 9–12
▲Describe ways to participate regularly in active play and enjoyable physical activities. (5.1.N) Name or show foods that are favorites to eat. Talk about a choice between two foods.	▲Use a decision-making process to select healthy foods. (5.1.N) ▲Compare and contrast healthy and less-healthy food choices in a variety of settings. (5.2.N) ▲Identify safe ways to increase physical activity. (5.3.N)	▲Describe how to use a decision-making process to select nutritious foods and beverages. (5.1.N) Compare nutritional values of a variety of similar food items. ▲Describe how to use a decision-making process to select healthy options for physical activity. (5.2.N)	▲Use a decision-making process to identify healthy foods for meals and snacks. (5.1.N) ▲Use a decision-making process to determine activities that increase physical fitness. (5.2.N) ▲Compare personal eating and physical activity patterns with current age-appropriate guidelines. (5.3.N)	▲Use a decision-making process to evaluate daily food intake for meeting nutritional requirements. (5.1.N) ▲Identify recreational activities that increase physical activity. (5.2.N) ▲Contrast healthy and risky approaches to weight management. (5.3.N) ▲Analyze the physical, mental, and social benefits of physical activity. (5.4.N)	▲Demonstrate how nutritional needs are affected by age, gender, activity level, pregnancy, and health status. (5.1.N) ▲Use a decision-making process to plan nutritionally adequate meals at home and away from home. (5.2.N) ▲Demonstrate how to use safe food-handling procedures when preparing meals and snacks. (5.3.N) Assess the advantages and disadvantages of daily multivitamin and mineral supplements.

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6. Overarching Nutrition Competency: Goal Setting for Nutrition

All students will demonstrate the ability to use goal-setting skills to enhance nutrition and health.

Kindergarten	Grades 1–2	Grades 3–4	Grades 5–6	Grades 7–8	Grades 9–12
Set a goal to use manners when consuming meals at school.	▲Set a short-term goal to choose healthy foods for snacks and meals. (6.1.N) ▲Set a short-term goal to participate daily in vigorous physical activity. (6.2.N)	▲Make a plan to choose healthy foods and beverages. (6.1.N) ▲Make a plan to choose physical activities at school and home. (6.2.N)	▲Monitor personal progress toward a nutritional goal. (6.1.N) ▲Monitor personal progress toward a physical activity goal. (6.2.N)	▲Make a personal plan for improving one's nutrition and incorporating physical activity into daily routines. (6.1.N) ▲Set a goal to increase daily physical activity. (6.2.N)	▲Assess one's personal nutrition needs and physical activity level. (6.1.N) ▲Develop practical solutions for removing barriers to healthy eating and physical activity. (6.2.N) ▲Create a personal nutrition and physical activity plan based on current guidelines. (6.3.N)

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7. Overarching Nutrition Competency: Practicing Nutrition-Enhancing Behaviors

All students will demonstrate the ability to practice nutrition-related behaviors that reduce risk and promote health.

Kindergarten	Grades 1–2	Grades 3–4	Grades 5–6	Grades 7–8	Grades 9–12
▲Select nutritious snacks. (7.1.N) ▲Plan a nutritious breakfast. (7.2.N) Demonstrate hand washing before handling or eating foods. ▲Choose healthy foods in a variety of settings. (7.3.N)	▲Examine the importance of eating a nutritious breakfast every day. (7.1.N) ▲Plan a nutritious meal. (7.2.N) ▲Select healthy beverages. (7.3.N) ▲Examine the criteria for choosing a nutritious snack. (7.4.N) Record foods consumed and use the current USDA guide for daily food choices to classify food groups selected. Demonstrate safe practices for handling and preparing foods at school. ▲Participate in physical activities with friends and family. (7.5.N)	▲Practice how to take personal responsibility for eating healthy foods. (7.1.N) ▲Practice how to take personal responsibility for limiting sugar (and salt) consumption in foods, snacks, and beverages. (7.2.N) Demonstrate the preparation of a nutritious snack. ▲Practice how to take personal responsibility for engaging in physical activity. (7.3.N) ▲Identify ways to establish and maintain healthy eating practices consistent with current research-based guidelines for a nutritionally balanced diet. (7.4.N)	▲Identify ways to choose healthy snacks based on current research-based guidelines. (7.1.N) ▲Demonstrate how to prepare a healthy meal or snack using sanitary food preparation and storage practices. (7.2.N) ▲Demonstrate the ability to balance food intake and physical activity. (7.3.N) ▲Demonstrate the ability to assess personal physical- activity levels. (7.4.N) Practice using the Nutrition Facts label and ingredient list on food products and explain how the information may help in making food choices.	▲Make healthy food choices in a variety of settings. (7.1.N) Develop a plan for making informed decisions about food choices using the food cycle. Develop a menu that meets recommendations of the current USDA guide for daily food choices. ▲Explain proper food-handling safety when preparing meals and snacks. (7.2.N) Demonstrate food- preparation skills to enhance the appeal, taste, and nutritional value of foods. Use unit pricing to select the healthiest foods at the best prices. ▲Assess personal physical activity levels. (7.3.N) ▲Examine ways to be physically active throughout a lifetime. (7.4.N)	▲Select healthy foods and beverages in a variety of settings. (7.1.N) Design menus, based on food guidelines, according to age, gender, and activity level. Demonstrate ways to purchase healthy foods within budget constraints. ▲Critique one's personal diet for overall balance of key nutrients. (7.2.N) Demonstrate the use of the Dietary Reference Intakes to assess dietary quality. ▲Identify strategies for eating more fruits and vegetables. (7.3.N) ▲Describe how to take more personal responsibility for eating healthy foods. (7.4.N) ▲Participate in school and community activities that promote fitness and health. (7.5.N)

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8. Overarching Nutrition Competency: Nutrition Promotion

All students will demonstrate the ability to promote and support a sustainable, nutritious food supply and healthy lifestyles for families and communities.

Kindergarten	Grades 1–2	Grades 3–4	Grades 5–6	Grades 7–8	Grades 9–12
Prepare a healthy snack. Practice selecting foods that are in season. Identify and try a new fruit or vegetable. Tell others about trying a healthy snack or new fruit and vegetable. Encourage others when they select healthy foods.	▲Practice making healthy eating choices with friends and family. (8.1.N) ▲Explain to others what is enjoyable about physical activity. (8.2.N) Explain to others what is enjoyable about eating healthy foods. Try foods that are grown locally.	▲Support others in making positive food and physical activity choices. (8.1.N) Demonstrate how to offer support to someone who is teased because of weight or body shape.	▲Encourage and promote healthy eating and increased physical activity opportunities at school and in the community. (8.1.N) Use different cultural traditions to plan meals.	▲Encourage nutrient-dense food choices in school. (8.1.N) ▲Support increased opportunities for physical activity at school and in the community. (8.2.N) ▲Encourage peers to eat healthy foods and to be physically active. (8.3.N) Explain how our food choices influence the food supply of the future. Educate family and peers about the advantages of selecting locally grown seasonal foods. Evaluate various approaches to maintaining a healthy weight.	▲Advocate enhanced nutritional options in the school and community. (8.1.N) ▲Educate family and peers about choosing healthy foods. (8.2.N) Examine who makes food policy and how consumers may influence food policy. Develop an action plan to increase awareness of the local, national, and global factors that influence the quantity and quality of food. Describe an example of a nutritional problem in another country and a possible solution. Discuss methods consumers may use to influence the food industry.

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