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TEEN Third Edition CUISINE

Leader's Guide

A Cooking and Nutrition
Education Curriculum
For Teens Grades 6 to 12

Department of Human Nutrition, Foods, and Exercise
Virginia Tech
and
Virginia Cooperative Extension
4-H Youth Development Program

For questions or more information, email TeenCuisine@vt.edu

Revised July 2018



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Introduction

Welcome to Teen Cuisine, Developed by Virginia Cooperative Extension

Teen Cuisine is designed to teach youth from grades 6 to 12 important life skills to promote optimal health – both in the present and in the future. The curriculum addresses key concepts about nutrition, food preparation and cooking, food safety, and physical activity using approaches and strategies that enhance learning and behavior change among teens. The program was developed, delivered, and evaluated by Virginia Cooperative Extension through strong partnerships between the Virginia Family Nutrition Program, 4-H, and the Family and Consumer Sciences programming areas.

RATIONALE FOR TEEN CUISINE

According to the USDA Economic Research Service (ERS), 43% of all food spending in 2012 was on food away from home, compared to just 25% in 1970. Foods prepared away from home are higher in calories, total fat, and saturated fat and lower in calcium, fiber, and iron. Although there are many reasons why away-from-home food is the foundation of many American's diets, one factor is the decline in cooking skills. That is why Teen Cuisine aims to empower teens to adopt healthier lifestyles by teaching them the knowledge and skills needed to prepare nutritious and delicious snacks and meals at home.

In addition to cooking skills, the *2015-2020 Dietary Guidelines for Americans* recommends that nutrition professionals and educators: teach skills, such as meal planning and label reading; help youth develop plans to limit screen time and time spent being sedentary; and increase physical activity among individuals they work with. By teaching teens the knowledge and skills required to make informed food and lifestyle choices, educators will be helping them to increase their confidence to apply these skills at home, which can lead to positive eating patterns and better health.

GOAL OF TEEN CUISINE

If taught as intended, after completing this curriculum, a teen will be able to:

- Apply MyPlate to meal and snack planning, including breakfast
- Identify nutrient-dense foods and beverages that are low in added sugars, saturated fats, and sodium
- Read and follow a recipe, using correct cooking and measuring techniques
- Demonstrate safe knife-handling skills
- Prepare food safely to prevent foodborne illness
- Use food labels to choose healthier foods and snacks
- Understand the importance of physical activity and consider ways of incorporating it into everyday life

In an evaluation of the program (n=531), 76.4% of teens who completed the program reported changes in food choices, 80.9% improved knife skills and exhibited increased comfort when using a knife, 74.1% accurately used recipes when cooking, and 84% cooked more (Price and co-workers, 2016).



USING THIS CURRICULUM

There are six lessons in the Teen Cuisine curriculum:

- Lesson 1: Eat Smart
- Lesson 2: You Are What You Eat
- Lesson 3: Power Up with Breakfast
- Lesson 4: Find the Fat
- Lesson 5: Kick the Sugar Habit
- Lesson 6: Snack Attack

Each lesson consists of a variety of activities on: nutrition, food safety, food preparation, and physical activity. On some topics a variety of activities are offered for the educator to choose from depending on the time and skill level of the teens. The focus of Teen Cuisine is on supporting healthy eating and safe food preparation/cooking, but not all locations will have access to kitchens, so alternative suggestions are provided. Other tips are also provided to allow for flexibility. Additionally, physical activity is an important component of health (and weight), so suggested activities are also included on this topic.

Each lesson is designed to be 90-minutes in length. Each lesson can be modified for shorter classes or extended for more than six sessions. To qualify as a 4-H program, a minimum of six hours of instruction is needed.

The curriculum consists of three components:

- **Leader's Guide** - detailed instructions on the activities for each lesson.
- **Student Workbook** - activities to help teens remember important points, as well as a collection of recipes that are easy to fix, low cost, nutrient dense, and require basic cooking skills
- **4-H Project Record Book** - expanded learning activities to help teens investigate a variety of topics related to the foods they eat and how they affect their overall well-being.

Leader's Guide

For each lesson, the Leader's Guide is structured to provide educators with all of the information they need to successfully lead the lesson, including:

- Lesson goal
- Objectives
- Key message
- Resources to print
- Materials and supplies
- Lesson overview, including the time needed for each section of the lesson
- Tips for modifying the lesson, such as suggestions to accommodate different ages, experiences, and classroom settings
- Recipes that meet specific nutrition standards
- Activity instructions for nutrition, food safety, food preparation, and physical activity components

- Information to know: Lesson 411 - background information needed to teach this lesson.

Icons are used in the guide to indicate when additional resources can be used.



- “Find in the Workbook” – Indicates to refer to information or activities in the student workbook.



- “Games & Activities” – Indicates resources included to lead an in-class activity. Files for these are located with the digital resources provided with the curriculum.



- “Resources” – Indicates pages that can be printed, plugged into lessons, and distributed to teens for use in the lesson as well as information that may be used to supplement the lesson, either displayed on a projector or printed for repeated use in the program.

The activities in each lesson are designed to engage teens and reduce “lecture time.” To facilitate more discussion and engagement by the teens, each activity includes a variety of **ASK** questions. Leaders may develop their own questions as they gain experience with the curriculum and tailor the questions to the particular interest of their teens.

The Leader’s Guide has complete instructions for each activity. Before leading a class, educators need to read these activities and prepare in advance. Lessons should be delivered in the educator’s own words and style and are not meant to be given in a scripted fashion. The Leader’s Guide is not meant to be used as the lessons plan but as an advance planning guide.

Educators should consider the time, setting, and individual needs of their groups when planning activities. Activities that are labeled “optional” may be used for more advanced teens who wish to dig deeper into their understanding and practice of the topic. Leaders may wish to arrange the activities in a different order than the guide due to time allowed for the lesson, time needed for food preparation, or classroom environment. We do not suggest changing the order of the lessons, however, since each lesson builds on the previous material. The order within the lesson is not as critical.

Learning to cook is a key concept to this curriculum, and low-cost, nutrient-dense recipe recommendations are included. Focus is placed on food safety and cleanliness while working with foods. Use of food service gloves is recommended when needed.

Many activities require teens to read and analyze nutrition information on food packages. Leaders are encouraged to collect actual food packaging that is familiar and accessible to the teens they are teaching. Guidance is given with each lesson on the kinds of foods to collect for the topic being taught.



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Student Workbook

The accompanying student workbook contains information and activities organized by lessons to help teens remember important concepts from the program. Some activities allow teens to record their personal responses to information they are learning in the program. Other pages provide reference material that they can use in the activities they complete in class. Recipes are interspersed throughout the workbook and are easy to fix, low-cost, nutrient-dense, and require basic cooking skills and equipment. The recipes included in each lesson reinforce the messages taught in that lesson. At the end of the workbook there is a larger collection of recipes that can be used in the program or for teens to prepare at home. All participants may take their student book home after the last class to share the information and recipes with their families.

4-H Project Record Book

The accompanying project book allows for expanded learning opportunities in regards to Teen Cuisine and healthy living. More specifically, the purpose of the project book is to: introduce teens to 4-H project work; extend learning for those participating in Teen Cuisine; provide an opportunity to investigate areas of interest; learn how to set goals through the use of SMART goals; explore food tastes and textures; plan for future cooking and lifestyle skills you need as an adult; and share what was learned with family, friends, and the community.

LEARNER-CENTERED EDUCATION

Learner-centered education is the foundation of Teen Cuisine. Learner-centered education refers to an educational approach where the responsibility for learning is placed on the learner. The teacher acts as a facilitator who guides learners to discover new ideas and ways of doing things. In traditional learning, the information flows from the teacher to the learner. In a learner-centered environment, the teacher facilitates experiences that help teens discover new information and share ideas with each other. Teens are more likely to adopt new behaviors because they have connected to the concepts through personal experience, rather than through lectures, reading, and tests.

Learner-centered lessons are designed to follow this pattern:

- Connect what teens currently believe or do to new information presented.
- Use open questions to stimulate dialogue and new ideas based on teens experience.
- Provide new information with practical skills needed to apply the content. Include time for practice so teens can perform new behaviors with confidence.
- Assist teens in applying the new behavior to their daily lives and beliefs through goal setting.

The Experiential Learning Model (ELM) used in 4-H programs was also used in designing this curriculum. The core principles of ELM are Do, Generalize, Apply. Each lesson is structured to have teens participate in activities, as in the **Do** principle of ELM. Through open questions and sharing of experiences they then consider the meaning as well as purpose of what was accomplished and complete the **Generalize** principle.

At the end of each lesson teens are encouraged to consider how they will apply what they practiced and learned to their own lives, which will complete the **Apply** principle of the model. When the next lesson begins, it is important to take time and have teens reflect on how they applied what they have learned to their lives and share experiences. By applying the Experiential Learning Model, participants will utilize higher levels of thinking to understand and internalize key concepts related to foods and nutrition in this curriculum.

WORKING WITH TEENS

There are many changes that take place in cognitive, psychosocial, and emotional development during adolescence. Many teachers and parents comment that teenagers are a challenging age group to work with for a few reasons. The teenage years can be tumultuous. As bodies are changing, hormones and therefore moods are unpredictable, and academics become more demanding. Nonetheless, there are many positives about working with teens, as long as you know how best to relate and communicate with teens in a variety of situations.

- Teens are increasingly able to comprehend abstract thought, have interest in moral reasoning, and have a greater capacity to set goals. As a result, do not underestimate their capabilities. Expect the best from them and they will likely deliver.
- They struggle with a sense of identity and may feel awkward about themselves and their bodies, aiming to be “normal.” Teens may need to have praise and adoration of others in order to build good self-esteem. Reward good behavior and accomplishments, encourage those who need help, and never criticize or ridicule teens or allow others to do the same.
- Peers are the most important influence on teens, and teens will often abandon their own beliefs in order to fit in with a group. Be sure to identify natural, positive leaders within your group/class and get their buy-in; this will help you be successful. Consider other ways to support positive group dynamics and teamwork.
- Girls mature faster than boys physically, mentally, and emotionally. Even though girls and boys may be in the same grade, girls may seem like they are much more mature and advanced.
- Teens can feel like they are invincible, nothing bad can happen to them, and like they are immune to injury or illness. Talking about life as an adult is good and talking about what may happen if they do not eat well is not.
- Adolescents want independence. Teachers and parents can become a source of frustration as they aim to set rules and limits. This can be especially true if parents have a difficult time accepting their children as young adults.
- Remember that even if they do not show it, teens still seek approval and guidance.

When working with teens, it is important to be sensitive to group dynamics. Teens have a comfort zone which includes being surrounded by friends and certain peer groups.



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On their own, they may not work voluntarily with teens outside their groups. Consider grouping two friends within each group to help the teens feel more comfortable trying new things.

Effort should be made to find ways to mix up the group assignments randomly. Ideas include having teens count off by the number of groups you need, lining up by height or birthdays and counting off, or by writing tasks on index cards, and ask them to draw from the deck for their task.

When working with teens it is important to include teamwork, safety for group work, and cooking activities into the class plan. Model and practice ways groups can practice good communication skills. Adding a level of team competition may help accomplish this.

Plan for everyone to contribute equally in all aspects of cooking and cleaning. While many teens have diverse ideas on what it means to clean, it is vital to communicate clearly the expectations for cleaning before the class. By establishing clear tasks and standards, all teens will be held to the same expectations. For the class to be a success, the facilities should be left in better condition than they were found in.

Finally, recognize that teens may not see the long-term benefits of healthy eating, food safety, or physical activity. Rather, they tend to focus on the present and the certain. As concretely as possible, try to frame why these behaviors are important now.

NUTRITION

Adolescence represents an important transitional stage, as teens move from childhood to adulthood and increasing independence. Unfortunately, adverse changes take place in regards to eating habits and physical activity during this time, including an increase in eating away from home, an increase in the consumption of foods that are high in fat and sugar, an increase in the consumption of sugar-sweetened beverages, a shift away from whole grains, fruits and vegetables, and an increase in snacking frequency. This results in an excess consumption of added sugars, saturated fats, and sodium. It also contributes to inadequate levels of calcium, potassium, dietary fiber, and vitamin D, which are considered nutrients of public health concern. Teen Cuisine addresses these nutrition concerns and eating patterns within its program, based on the *2015-2020 Dietary Guidelines for Americans*. Teen participants are encouraged to:

- **Follow a healthy eating pattern.** An eating pattern is the “combination of foods and beverages that constitute an individual’s complete dietary intake over time.”
- **Focus on variety.** Variety is defined as “a diverse assortment of foods and beverages across and within all food groups and subgroups selected to fulfill the recommended amounts without exceeding the limits for calories and other dietary components.”
- **Focus on nutrient-dense foods.** Nutrient-dense foods are “foods and beverages that provide vitamins, minerals, and other substances that contribute to adequate nutrient intakes or may have positive health effects, with little or no solid fats and added sugars, refined starches, and sodium. Ideally, these foods and beverages also are in forms that retain naturally occurring components, such as dietary fiber.”

- **Focus on amount or portion size.**
- **Limit added sugars, saturated fats, and sodium**, which are over-consumed.
- **Shift to healthier food and beverage choices.**

Finally, studies show that weight is the most common reason that adolescents are teased and bullied at school. It is important to keep that in mind when teaching teens about being healthier so that no one feels stigmatized because of his or her weight.

According to data from NHANES, there is a high prevalence of individuals with weights in the “normal” category who are metabolically unhealthy and a high prevalence of individuals considered “overweight” or “obese” who are metabolically healthy. Therefore, it is important to emphasize health, not weight, and remind your teens that everyone should strive to be and can be healthy, regardless of body weight, shape, or size.

An important note on the Nutrition Facts Label. An essential part of choosing and eating healthfully is reading and interpreting the Nutrition Facts Label on food and beverage products. At the time of revising these materials, a new/updated label was to be required starting in 2018 – however the timeline for compliance recently was extended from July 26, 2018, to January 1, 2020, for manufacturers with \$10 million or more in annual food sales, and from July 26, 2019 to Jan. 1, 2021 for manufacturers with less than \$10 million in annual food sales. Many products do have the *updated* food label, but many do not. The current food label includes the nutrients of concern recommended by the 2010 Dietary Guidelines for Americans that include vitamins A and C, calcium, iron, total fat, saturated fat, and cholesterol. The *current* label shows total carbohydrates and sugars. There is no distinction between natural sugars in fruits, vegetables, and milk products, and those that contain added sugars on the current label.

The *updated* label will require nutrients of public health concern in the *2015 Dietary Guidelines for Americans* - vitamin D, calcium, iron, potassium – in addition to added sugars (and saturated fat, which is already on the label). It is recommended that calories from added sugars be limited to 10% of total calories. With the *updated* label, it will be much easier for consumers to be aware of the amount of added sugars in their food and to plan accordingly.

While using this edition of the curriculum, teens will see both versions of the Nutrition Facts Labels on foods they eat and labels they utilize in the lessons’ learning activities. Given the availability of both versions of a food label, the nutrients of public health concern for both the 2010 and the 2015 Dietary Guidelines for Americans have been combined. Most Americans can benefit from increasing their intake of these vitamins and minerals.

In lesson two, “You Are What You Eat,” teens learn how to read the Nutrition Facts Label. Included are posters of both the current and updated versions. Additional resources are available to differentiate between the two versions. As more foods incorporate the new format on their packaging, it is recommended to teach teens using the resources with the updated label.

In lesson four, “Find the Fat,” reducing saturated fat and replacing it with healthy fats is emphasized, consistent with both *2010* and *2015 Dietary Guidelines for Americans*. Cholesterol is not discussed in-depth however, as it has been de-emphasized in the *2015 Dietary Guidelines for Americans*. Since cholesterol is mostly found in foods that



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are higher in saturated fat, by reducing the consumption of foods high in saturated fat, cholesterol will be reduced as well.

In lesson five, “Kick the Sugar Habit,” the focus is on limiting added sugars to 10% of total calories. Since many products the teens analyze might include the current label which only lists total sugars, it is recommended that they take note of the ingredients in the product. If the item does not contain fruit or milk, AND if sugar appears in the ingredient list (check all the variations of sugar names), especially as one of the first ingredients, the sugars are likely added.

FOOD PREPARATION/COOKING EXPERIENCES

Food preparation is a key part of Teen Cuisine lessons. Teens need opportunities to practice and gain confidence in food preparation. They also need practice in making personal choices about their own health in regards to the foods they eat. Food preparation activities should be planned so that all teens, regardless of their skill level, have a role in their groups.

To accommodate differences in classroom settings, each lesson offers a variety of recipes to try. Some recipes require access to a kitchen and utilize knives, while others can be made in any location without knives. Recipes chosen to prepare should take into account the location and availability of supplies and equipment during the planning stage of the program.

The following guidelines have been used for all of the recipes included in Teen Cuisine to ensure that they follow the *2015-2020 Dietary Guidelines for Americans*, that they are easy to prepare, and that they are low in cost. Specifically, they are designed to promote “whole” foods that are minimally processed (such as whole grains), while being low in added sugars, saturated fat, and sodium.

Recipe Nutrition Standards:

- Saturated fat less than 10% per serving
- Total fat less than 35% of calories per serving
- Sodium less than 460 milligrams per serving
- Added sugars less than 10% per serving

FOOD SAFETY

The Centers for Disease Control estimates that each year, one in six Americans (48 million) get sick, 128,000 are hospitalized, and 3,000 die from foodborne illness. Many people do not realize that most foodborne illnesses occur after consumers purchase their food. Through proper food handling procedures, potential food safety problems can be avoided. Keeping food safe and preventing many foodborne illnesses is within the control of the consumer.

To reinforce safe food handling practices, Teen Cuisine is based on the FightBac!® “Core Four Practices” (Clean, Separate, Cook, and Chill) from the Partnership for Food Safety Education. FightBac!® has many resources that support the food safety messages in Teen Cuisine and can be found at: <http://www.fightbac.org/>. Copies of the Food Safety Fact Sheets for CLEAN, SEPARATE, COOK, and CHILL are included in the digital resources. It is recommended that these messages are incorporated in every class in this program.

BE AWARE OF FOOD ALLERGIES

Food allergies have become more prevalent, especially allergies to nuts, including peanut butter. Some people cannot tolerate foods that contain gluten.

Food allergies or intolerances should be discussed with the adults and teens in the program to see what allergies and intolerances are present. Recipes should be selected or adjusted to accommodate the participant’s needs.

The “Big Eight” most common foods that people are allergic to include:

- | | |
|--------------|----------------------|
| 1. Tree Nuts | 5. Peanuts |
| 2. Dairy | 6. Wheat/Gluten |
| 3. Soy | 7. Seafood/Shellfish |
| 4. Eggs | 8. Fish |

Once allergies are identified in a group, carefully check food labels to identify if any ingredients of a recipe contain items that may cause an allergic reaction.

TEACHING SAFE KNIFE SKILLS

One of the goals of this curriculum is to help teens learn about cooking safely so they can prepare simple and nutritious foods on their own. Learning to use a knife properly is essential in learning to cook. Facilitators must be trained in how to teach knife skills safely to youth. All leaders should model proper use and safe handling of knives.

Before beginning a program, the site where the program is being taught should have full knowledge of the equipment teens will be using and the skills they will be learning. Teens should only be allowed to use knives and kitchen equipment if the facility is aware of the culinary skills that will be learned and practiced within the program and full consent has been provided. All participants must work within the safety guidelines at the site in order to participate in food preparation activities to ensure safety for all.

If knives are not permitted at a teaching site, there are alternative activities and recipes that can be used. Leaders might consider including a knife skills demonstration, practicing knife skills with play dough and a plastic knife, or bringing ingredients already cut up to include in recipes that utilize knives.



PHYSICAL ACTIVITY

Although learning to prepare and eat healthy foods is the main goal of Teen Cuisine, getting adequate physical activity is just as important in developing healthy habits. It is estimated that only around one-quarter of high school teens meet the current recommendations of 60 minutes of physical activity each day. In addition the average teen spends eight hours a day in sedentary activities, seven of which is spent interacting with screens. Regular physical activity can promote health, fitness, and can have emotional health benefits like reduced symptoms of anxiety and depression. Youth generally understand that good health is important, but are not aware of the adverse health effects it may have on them if they do not get enough activity over time.

Each lesson in Teen Cuisine contains a brief physical activity message and an optional physical activity teens can perform. If a program is being delivered at a site that does not have a kitchen, more focus may be placed on the benefits of physical activity. Leaders will need to decide if conducting the optional physical activity will fit with the class environment and objectives of their program.

The physical activity component is presented as the last component in each lesson but it is advised to incorporate it where it best fits with activities planned for each class.

Incorporating physical activity awareness into nutrition education programs can help youth understand that good health has multiple dimensions. Modeling and practicing good physical activity habits along with nutrition can provide a fun and exciting environment for youth to build healthy habits for long-term behavior change.

VIRGINIA COOPERATIVE EXTENSION

Virginia Cooperative Extension (VCE) is an educational outreach program of Virginia's land-grant universities - Virginia Tech and Virginia State University - and a part of the National Institute for Food and Agriculture, an agency of the United States Department of Agriculture. Extension programs are delivered through a network of faculty at 2 universities, 107 county and city offices, 11 agricultural research and Extension centers, and 6 4-H educational centers. (More information can be found at www.ext.vt.edu.)

The goal of VCE is "putting knowledge to work." VCE encompasses a wide variety of topics and several different programming areas. Teen Cuisine was created by the following VCE program areas:

- **Virginia Family Nutrition Program** - a statewide nutrition education program to help limited resource individuals make informed, healthy food purchases through: individual or group-based nutrition education, health promotion, and intervention strategies; comprehensive, multi-level interventions at multiple complementary organizational and institutional levels; and community and public health approaches to improve nutrition. These approaches span four cornerstone initiatives: Peer-Led Nutrition Education Programs; Volunteer-Led

Nutrition Education Programs; the Food Access and Availability Initiative; and Social Media and Marketing.

- **Virginia 4-H** – the youth development educational program of VCE is designed to empower youth to reach their full potential through youth-adult partnerships and research-based experiences. Virginia 4-H follows the principles of experiential learning and draws on the knowledge base of Virginia Tech, Virginia State University, and other institutions of higher education in cooperation with the United States Department of Agriculture. The Virginia 4-H Program’s vision and mission statements clearly view youth as partners working with staff and volunteers, and as full participants in planning and working for individual and community change.
- **Family and Consumer Sciences** – a set of community-based programs and approaches that focus on health and wellness, family financial management, and family and human development. Through both faculty and volunteer-led efforts, educational programs are delivered primarily in groups sessions. In the health and wellness arena, the primary content addressed includes nutrition education, food safety, food preservation, food preparation and physical activity. Regarding family financial management, faculty and volunteers teach sessions on budgeting, understanding and managing credit, establishing savings, and home buyer education. Child development for child care providers, parents and other caregivers, parenting education for various audiences, and managing stress are key components of the family and human development programming.

