

A Best Practices Guide

for

Teens CAN

COMPREHENSIVE FOOD LITERACY IN
COOKING, AGRICULTURE, AND NUTRITION



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Acknowledgments

This work would not have been possible without the collaboration between **Scherr Nutrition Science Consulting** and **Ida B. Wells High School** in the San Francisco Unified School District. We extend our gratitude to **CalFresh Healthy Living, University of California State Office** for their funding and the **CalFresh Healthy Living, University of California Cooperative Extension Santa Clara Cluster** for their commitment to improving nutrition education for teens, ensuring that this curriculum could be implemented with the necessary resources.

We also sincerely thank **Raina Meyers, the Peer Resources Teacher at Ida B. Wells High School**, for welcoming this program and for her enthusiasm in integrating the Teens CAN curriculum into the learning environment. The teacher and students at Ida B. Wells have provided crucial insights and feedback, making this work more meaningful and impactful.

Additionally, we acknowledge the contributions of **San Francisco State University volunteer undergraduate and graduate students** who played a vital role in implementing and evaluating the fidelity and impact of this curriculum. Their hard work has helped to ensure **Teens CAN's** success.

- Fernanda Amezcua Espinosa
- Hayoung Kim
- Isabella Romero
- Pallvi Sharma
- Nikki Wong
- Kevin Fizer
- Tonya Xie

This collaboration is an example of the importance of community partnerships in creating sustainable and effective nutrition education programs.

Thank you for your interest!

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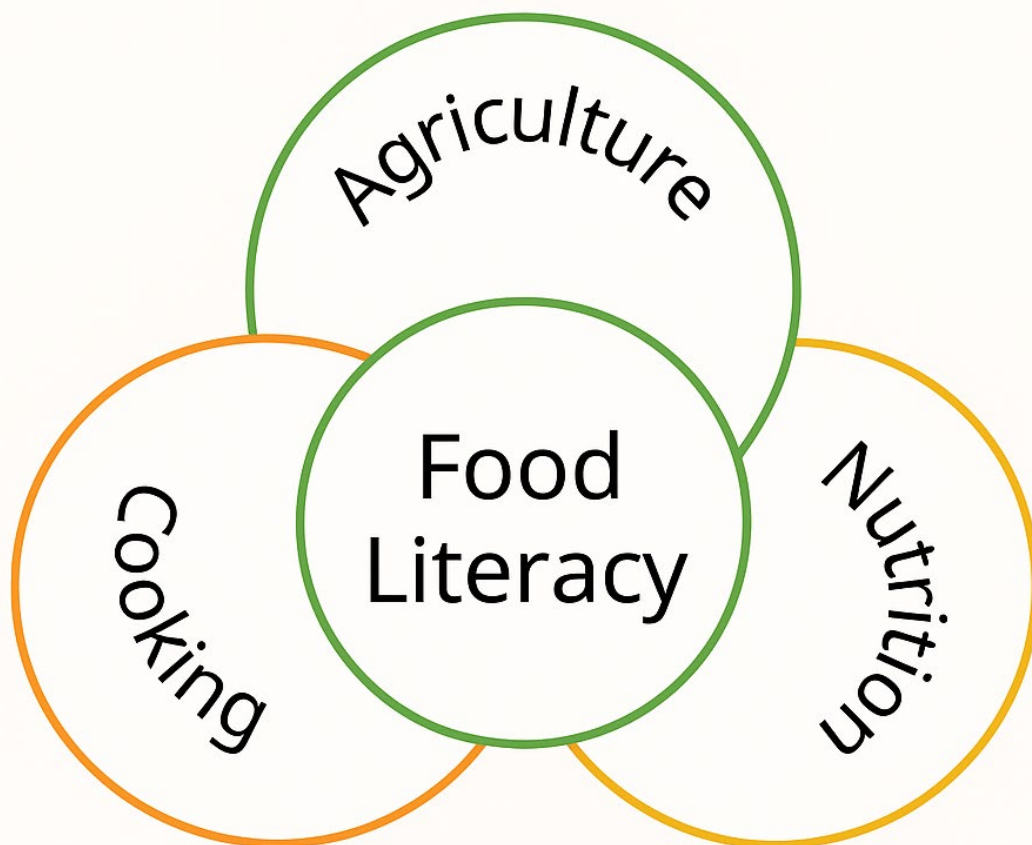


Funding

This material was funded by USDA's Supplemental Nutrition Assistance Program - (SNAP). This institution is an equal opportunity provider. Visit www.CalFreshHealthyLiving.org for healthy tips.

University of California Agriculture & Natural Resources (UC ANR) is an equal opportunity provider.

Framework and Pedagogical Approaches



Food Literacy

The development of **Teens CAN: Comprehensive Food Literacy in Cooking, Agriculture, and Nutrition (Teens CAN)** was driven by a lack of inquiry and experiential curriculum for adolescents. Multiple curricula exist for elementary aged youth as well as for the adult population, but little encompass the adolescent population.¹ Current health statistics indicate that adolescents' dietary patterns and knowledge of recommended health practices do not support characteristics of lifelong well-being.^{2,3} Adolescence is a very important period of life where newly independent dietary patterns and behaviors are established which will impact their health and wellness as adults, thus nutrition education is imperative for this population.⁴

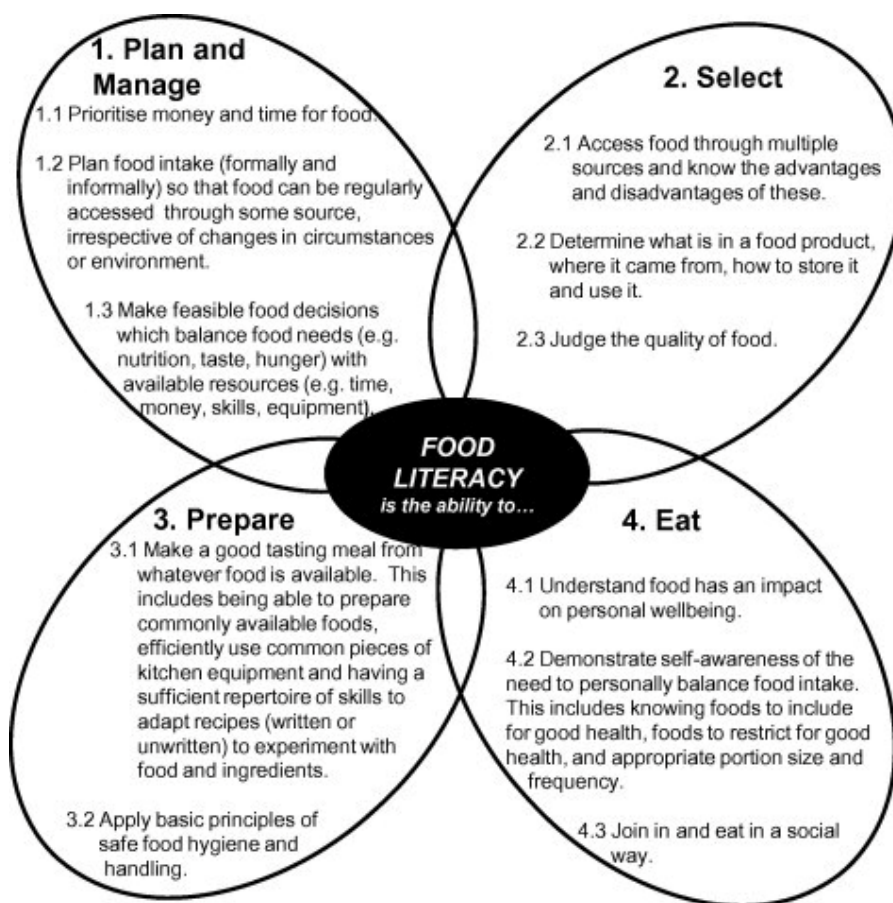


Figure 1: The Food Literacy Framework, 2014⁵

The concept of food literacy encompasses the complex nature of health and its multifaceted components, emphasizing the involvement of planning and management; selection; preparation; and the act of eating.⁵ Food literacy is specifically defined as, "the scaffolding that empowers individuals, households, communities, and nations to protect diet quality through change and strengthen dietary resilience over time."⁵ The Food Literacy Framework (Figure 1) emphasizes that literacy extends beyond cooking skills to include critical thinking about food choices, social and cultural

influences, and food security. Essentially, food literacy equips individuals with the ability to make informed decisions about food that support long-term health and well-being.

Food literacy acquisition correlates with improved outcomes, for example with dietary patterns, knowledge, and attitudes.⁶ For instance, a mixed-method experimental study evaluated the effectiveness of a *Food Literacy Boot Camp* among rural high school students. The program led to statistically significant improvements in sugar-sweetened beverage intake (e.g., reduction from baseline), healthy eating choices when dining out (e.g., including vegetables and lower fat selections), physical activity, and food safety practices (e.g., hand washing and using separate cutting boards for raw meats and fresh produce).⁷ Qualitative feedback highlighted enhanced practical skills, knowledge acquisition, and positive engagement with the program.⁷ Similarly, a virtual summer food literacy program titled, *Grow.Prepare.Eat.* for youth aged 9–14 improved participants' dietary habits and increased their food literacy knowledge, skills, and self-efficacy in choosing, preparing, and enjoying healthy foods.⁸ Youth also reported increased consumption of fruits and vegetables, plant-based proteins, low-fat milk, and high-fiber bread after participation in the program.⁸

Inquiry-Based Pedagogy

Best Practice

Inquiry-based approaches may seem intuitive, but a review of this pedagogy is suggested. This video is a helpful resource

https://youtu.be/gSQWS97xjHE?si=gh8Qgji_6pSdnqWc)

Inquiry-based pedagogy is an educational approach that emphasizes learner-driven exploration, questioning, and problem-solving.^{9,10} Inquiry-based pedagogy emerged from Constructivist theory,¹¹ where instead of passively receiving information, learners actively seek knowledge by investigating topics, analyzing evidence, and constructing their own understanding, thus improving

the personal connection for the learner. This method fosters curiosity, critical thinking, and a deeper engagement with the subject matter.¹⁰

Inquiry-based learning begins with an open-ended question to spark curiosity. This approach to education includes active investigation, observing, and manipulating (mentally or physically) objects and/or phenomena. By engaging the learners from the start, metacognition occurs, in which learners take responsibility for their own learning through collaborative thought and problem solving. The overall focus of this educational method is to instill lifelong learning habits.¹⁰ Beyond its unique impact on the learner, this approach also transforms the role of the educator, often referred to as a facilitator. Rather than serving solely as a transmitter of knowledge or content expert, the educator becomes a guide, organized and well-prepared, but not the only source of information. Inquiry-based pedagogy allows educators to gain deeper insight into their learners by uncovering their prior knowledge, interests, and ways of thinking.¹⁰

What We Did



To immerse our undergraduate student facilitators in this type of pedagogy, we hosted a two-day training at Elkus Ranch where undergraduate students actively engaged in pedagogy as both the learners and facilitators of the curriculum lessons through inquiry-based experiences and reflection.

Experiential Learning

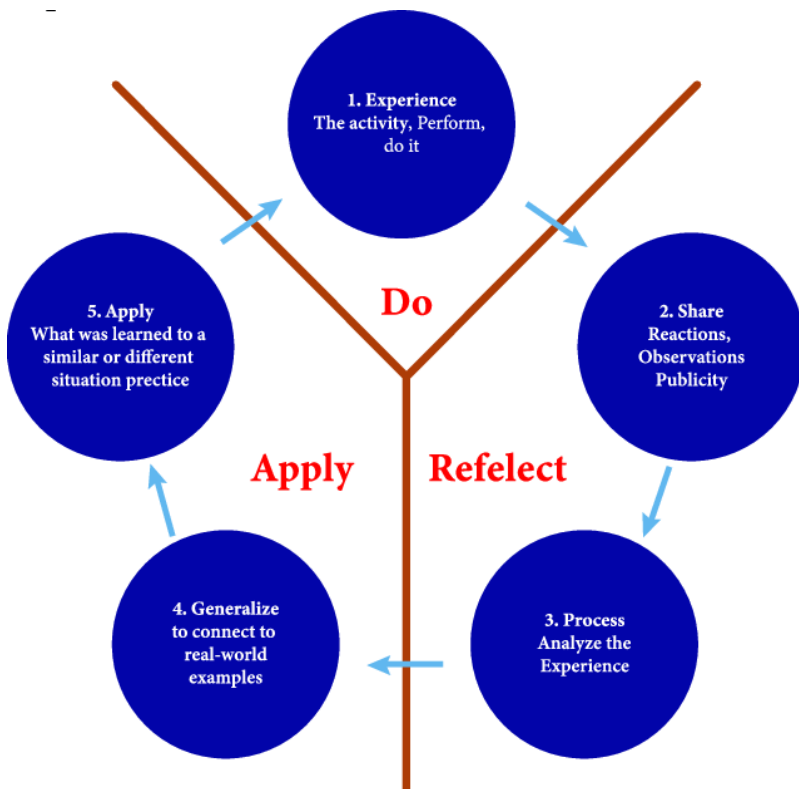


Figure 2. Pfeiffer and Jones experimental learning cycle (1985)¹²

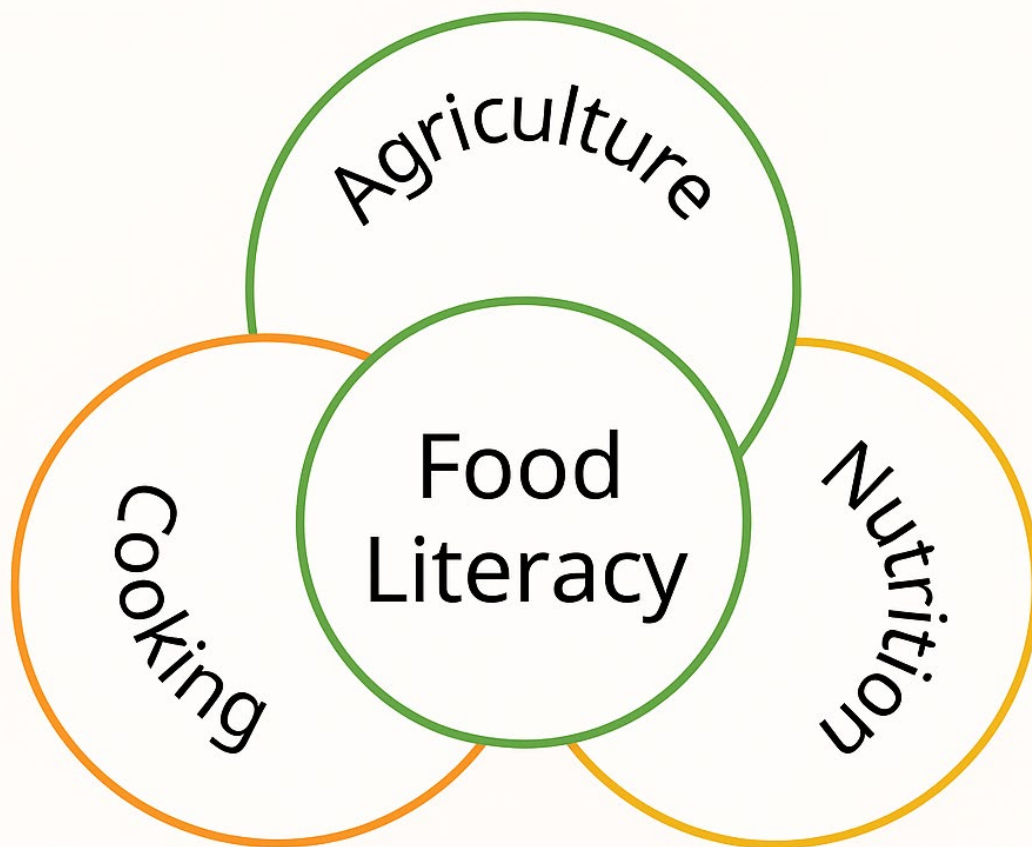
Experiential learning extends beyond inquiry-based approaches by immersing learners in hands-on activities and real-world applications that deepen understanding of classroom concepts through group and individual reflection (Figure 2).¹² Studies show that experiential learning significantly improves the retention of knowledge and solidifies practical skills in contrast to traditional transmission-based classroom education.^{13, 14}

Experiential learning and inquiry-based learning are complementary pedagogical approaches that, when

combined, enhance student engagement and deepen understanding. While inquiry-based learning emphasizes questioning, investigation, and building knowledge through exploration, experiential learning focuses on learning through direct, hands-on experiences followed by structured reflection. When used together, inquiry can guide the learning process by framing meaningful questions, while experiential activities provide context and real-world application. This integration encourages critical thinking, personal connection, and retention of concepts. Research supports the effectiveness of both methods in promoting active learning and improved academic outcomes.^{14, 15}

Curriculum

Overview



Teens CAN Curriculum

The **Teens CAN: Comprehensive Food Literacy in Cooking, Agriculture, & Nutrition (Teens CAN)** curriculum was designed to integrate core principles of food literacy, inquiry-based pedagogy, and experiential learning (Table 1). This curriculum offers a dynamic and responsive educational tool that meets the diverse and evolving learning needs of today's adolescents. It is intended to engage the learner with growing food, learning about the nutrition in that food and how it impacts health, and how to cook what is grown.

Table 1. Teens CAN Food Literacy Attributes and Education Components.¹⁶

Lesson Topic	Attributes	Components
Agriculture	• Food and other systems • Food attitude • Food knowledge • Food self-efficacy • Infrastructure and population-level determinants • Socio-cultural influences and eating practices	• Access food through multiple sources and know the advantages and disadvantages of these • Determine what is in a food product, where it came from, how to store it and use it
Nutrition	• Dietary behavior • Food attitude • Nutrition knowledge • Nutrition language • Nutrition literacy • Nutrition self-efficacy • Socio-cultural influences and eating practices	• Demonstrate self-awareness of the need to personally balance food intake • Determine what is in a food product, where it came from, how to store it and use it • Judge the quality of food • Understand food has an impact on personal wellbeing
Cooking	• Cooking self-efficacy • Food attitude • Food knowledge	• Apply basic principles of safe food hygiene and handling

	• Food language • Food techniques • Food self-efficacy • Food skills across the lifespan • Socio-cultural influence and eating practices	• Determine what is in a food product, where it came from, how to store it and use it • Make a good tasting meal from whatever food is available • Make feasible food decisions which balance food needs with available resources • Join in and eat in a social way • Plan food intake so that food can be regularly accessed through some source, irrespective of changes in circumstance or environment • Prioritize money and time for food
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The **Teens CAN** curriculum includes three topic areas: agriculture, nutrition, and cooking. Each of these topic areas has four lessons and is designed with home-based applications that reinforce the lesson's core learning objectives within the students' own environments. These 12 total lessons are rich with engagement, inquiry, and experiential aspects of learning (Table 2).

Table 2. Learning concepts and objectives for Teens CAN . ¹⁶		
Lesson	Learning Concepts	Learning Objective (Youth will be able to...)
Agriculture 1	Food supply chain	Organize components of the food supply chain
Agriculture 2	Agricultural systems	Compare and contrast various agricultural systems
Agriculture 3	Agroecology Technology	Assemble a timeline of the various movements and advancements that have shaped the food system today
Agriculture 4	Food availability Food access	Investigate deficits that exist in some food systems and ways to improve those deficits
Nutrition 1	MyPlate Food groups	Evaluate why consuming a variety of foods is needed to help an individual meet their daily food group recommendations
Nutrition 2	Macronutrients Micronutrients	Investigate which foods are good sources of different macronutrients and micronutrients utilizing the information provided on a Nutrition Facts Label
Nutrition 3	Nutrients of concern for underconsumption	Evaluate why consuming a variety of foods is needed to meet recommendations for nutrients of concern

Nutrition 4	Nutrition in media	Analyze nutrition claims in the media and critique misleading information
Cooking 1	Food safety	Identify and avoid potential food safety hazards
Cooking 2	Cooking equipment Cooking techniques	Demonstrate proper utilization of various cooking techniques and equipment
Cooking 3	Seasonality Budgeting	Plan meal options that incorporate budgetary needs and seasonal produce
Cooking 4	Recipe scaling Serving and portion sizing	Plan a meal and calculate the cost per serving of that meal

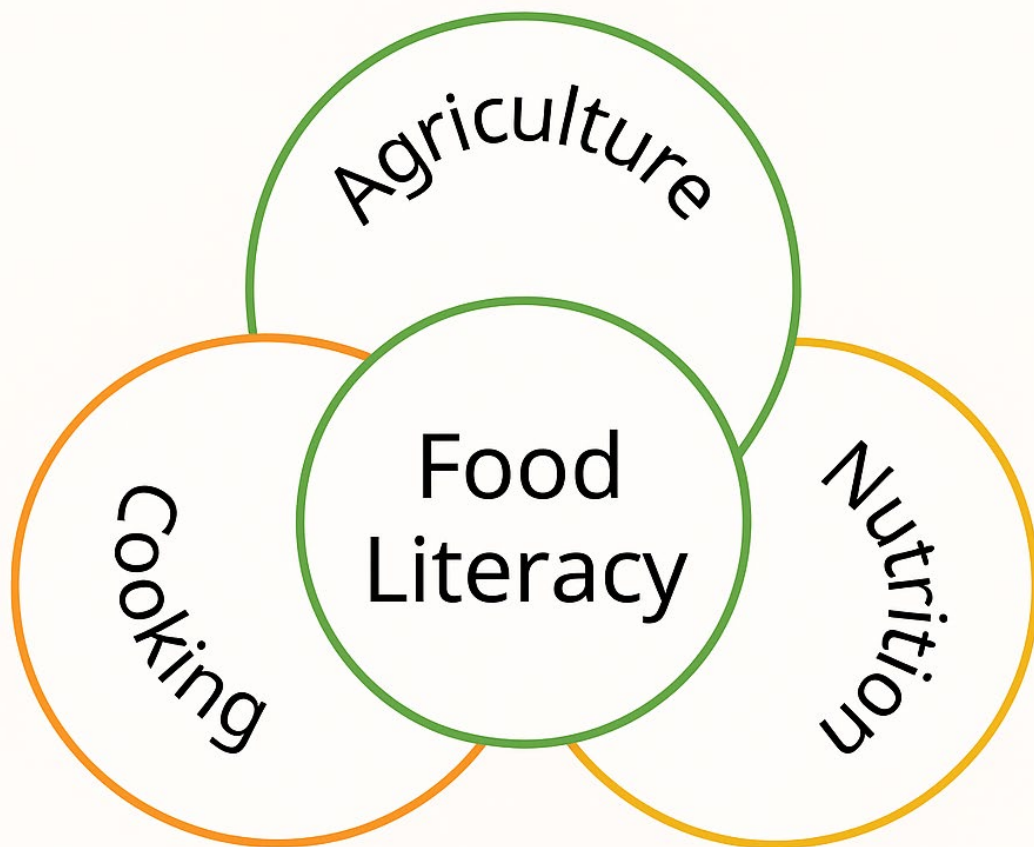
The agriculture lessons highlight a variety of food systems, offering learners the opportunity to engage with small-scale farming, urban agriculture techniques, and community or school gardening. In hands-on agricultural activities students map out towns considering access and barriers to food. In a lesson application, students apply what they’ve learned in actual growing spaces, whether in a community garden, a school-based plot, or a small-scale setup, like a home windowsill garden, which makes the experience both meaningful and personally relevant.

The nutrition lessons are designed to help students understand the nutrients found in food, the impact these nutrients have on the human body, and also engage with healthy dietary patterns based on MyPlate guidelines and individual needs. In addition, these modules engage students in evaluating food advertisements, teaching them to distinguish between evidence-based information and misleading marketing claims. Students participate in hands-on food pattern planning activities for various scenarios and are asked to reflect on foods they might eat. Through these varied learning experiences, students develop critical thinking skills that empower them to make informed, healthy food choices in their daily lives.

The cooking lessons are designed to facilitate learning about cooking techniques while ensuring safe food handling for meal preparation, and consumption. Additionally, students are taught about seasonal shopping and cooking practices to maximize their food budget and the nutritional quality of the produce. To underscore themes of food access and selection, a lesson includes messaging about using canned and frozen products. In the application portions of cooking, recipes are vegetarian, which provides exposure to plant-based protein sources and also provides an example of food safety regarding temperature regulation.

Pilot Testing

Teens CAN



Pilot Testing *Teens CAN*

Teens CAN is an evidence-based curriculum. Phase one (2018) pilot testing determined implementation feasibility as well as evaluated achievement of learning objectives.¹⁶ Phase two (2019) pilot testing set out to determine effectiveness of **Teens CAN** by observing change in measurable outcomes compared to a comparison group of youth. However, due to the COVID-19 pandemic, phase two was not initially completed in its entirety. To complete phase two, where effectiveness in the classroom was to be determined, a collaboration with CalFresh Healthy Living, University of California Cooperative Extension, Santa Clara Cluster, was initiated in 2024.

2024-2025 *Teens CAN* Pilot Project

In 2024, Scherr Nutrition Science Consulting, in partnership with CalFresh Healthy Living, University of California Cooperative Extension Santa Clara Cluster, and San Francisco State University, implemented phase two of ***Teens CAN***. The purpose of the phase two pilot study was to determine the effectiveness of ***Teens CAN*** on measurable outcomes in youth participants assessed against a comparison group. The pilot study mirrors what can be done in community education settings through the utilization of new and experienced education facilitators. While every project implementation is unique, the steps for this pilot are outlined in Table 3.

Table 3. Steps Taken to Implement and Evaluate *Teens CAN*

For the Teens CAN pilot, the following chronological steps were taken.

1. A university partner was identified.
2. Once the partnership was established and roles delineated (Spring 2024), a recruitment plan was devised. From this, relevant undergraduate majors were identified (e.g., nutrition, public health, holistic health, agriculture education, food science, etc.) for recruitment. A flier was developed and distributed Spring 2024 for a Fall 2024 internship.
3. Undergraduate students applied and were interviewed by the university partner and a member of the Scherr Nutrition Science Consulting team to ensure students were committed and demonstrated effective communication skills.
4. A training for the facilitators was scheduled and planned to occur prior to the academic semester.
5. An IRB application was prepared, submitted, and approved.*
6. During this time, in collaboration with the local SNAP-Ed implementing agency team, a high school was selected for implementation of the pilot program.
7. Training of interns was conducted over two days; see below for more details.
8. After training, practice sessions for lessons were continued to increase confidence for lesson facilitation.
9. Pre-data were collected.*
10. The program began with undergraduate interns facilitating two lessons per week.
11. Primary lesson activities and the Culinary Applications were conducted. The Agriculture Applications were not completed.

12. Typically, it is recommended that a primary lesson activity and application be conducted on the same day. However, because of time constraints, the primary lesson activity and the Culinary Applications were taught on two separate days during the same week.

13. Post-data were collected*

*These activities only pertain to programs in which an evaluation is conducted.

Recruitment of Facilitators

Best Practice

Consider using facilitators who align with near-peer descriptions, including those closer in age to the learner, ideally from the same community, who display an enthusiasm for learning, and possibly have some pre-existing facilitator experience.

Phase two of the **Teens CAN** pilot project used near-peer teaching, a type of cross-age teaching.¹⁸ Near-peer teaching involves specific training to facilitate the lessons from a given curriculum over time to a group of less experienced students.¹⁸ Although a professional educator is likely to be present for safety and supervision, this educator is not directly involved in providing the education. This

methodology was utilized in the phase two **Teens CAN** pilot as there are documented benefits for the facilitator and the learner including improved self-efficacy, communication skills, decision-making, empathy, and compassion.^{19, 20} Additionally, it is documented that the learner is more likely to engage with the subject matter when the facilitator feels relatable, such as in near-peer teaching models.²¹

One challenge faced in Supplemental Nutrition Assistance Program Education (SNAP-Ed) and community health education programs is the limitation of resources to reach all eligible schools, including staff time and training. A mutually beneficial option to alleviate the resource restraints is to leverage college students who are seeking professional development opportunities. This model has similarities to the commonly used extender model in SNAP-Ed.²² Thus, college student interns were recruited to serve as near-peer facilitators for the **Teens CAN** curriculum pilot phase two.

What We Did

- ✓ Specifically, college students were recruited and interviewed. Ultimately, five undergraduate interns were selected, thus resulting in two interns at each lesson.

Professional Development

Best Practice

Each **Teens CAN** lesson should be practiced until a level of adequate self-efficacy is achieved.

Professional development with respect to food literacy, inquiry- and experiential-based pedagogy is recommended. Professional development allows for new skill development and fine tuning of existing skills. Thus, depending on the skill level and experience of the educator, the intensity of the training can vary.

What We Did

- ✓ After college student interns were recruited, they participated in a two-day professional development about food literacy, inquiry- and experiential-based pedagogy (Appendix 1. Professional Development Agenda). As part of this professional development, the college student interns worked through each lesson of Teens CAN, practicing the facilitation of each lesson and the culinary applications.

Community of Practice

Best Practice

Setting up a regular CoP meeting with educators across schools or programs can support consistent teaching methods, lead to improvements in implementation, and also provide a space for reflection.

It is suggested that the approach of Community of Practice (CoP), defined as a group of educators or learners who share a common interest or goal and engage in ongoing, collaborative learning by sharing ideas, experiences, and resources, is utilized.²³ A CoP is recommended as part of ongoing professional development during the educational implementation. The frequency of calls is flexible, and the goal is to provide continual support for the facilitator(s).

What We Did

- ☒ Newly trained undergraduate interns met bi-weekly to review lessons, share learning observations and challenges, and determine best practices for future lessons as a group.

Lesson Fidelity

Best Practice

It is recommended that fidelity observations are collected by an external evaluator. Ideally, this will be someone who has familiarity with the curriculum, but who is not actively facilitating.

Additionally, during professional development, it is encouraged that educators review or be introduced to the concept and practice of fidelity assessment. Fidelity assessment refers to the process of evaluating how closely an intervention, program, or curriculum is implemented as intended.²⁴ The SNAP-Ed program also utilizes fidelity assessments to ensure that its nutrition education interventions are implemented as

intended.²⁵ These assessments evaluate whether the essential elements known to be important for achieving positive outcomes are consistently and accurately delivered. Each **Teens CAN** lesson has its own fidelity form, specific to its learning objectives, allowing for lesson evaluation. (**Appendix 2. Lesson Fidelity Forms**). Maintaining fidelity is crucial for achieving desired learner outcomes.

Conducting fidelity assessments is beneficial to educators for their continued professional development. If more than one person will be collecting these observations, the observers should be trained together and their observations compared. If there is not high agreement (high inter-rater reliability is considered above 90% agreement), training should be conducted again until the desirable agreement is achieved.

What We Did

- ✓ Lesson implementation was evaluated utilizing specific fidelity forms for Teens CAN. The fidelity data were collected by two graduate students. These graduate students were trained to collect fidelity observations using these forms during the professional development. A comparison of the two students' evaluation resulted in high inter-rater reliability.

Teens CAN Phase Two Pilot Implementation Study

Best Practice

In addition to professional development and/or lesson review of **Teens CAN**, connecting with the classroom teacher or community leader is helpful to create a supportive environment for implementation and open communication among all involved.

For the phase two pilot study, the **Teens CAN** curriculum was implemented in a local high school classroom and was assessed against a comparison classroom at the same high school. At both the start and conclusion of the program, several outcomes were assessed including diet quality using the Eating and Activity Tool for Students (EATS) Questionnaire, nutrition knowledge using the Adolescent Nutrition Knowledge Questionnaire, food safety self-efficacy using

the Intrinsic Motivation to Prepare Healthy Food Safely questionnaire, and demographics in both the intervention and comparison classrooms. Tools can be made available upon request.

The high school classroom teacher was very engaged and interested in the lessons. This provided a positive learning environment for the near-peer educators and adolescents.

What We Did

- ✓ Near-peer undergraduate interns worked in pairs to provide support for one another during the lessons.

Teens CAN Phase Two Pilot

Implementation Study

Best Practice

If time permits, spread the implementation of the curriculum out over multiple weeks to allow for reflection and mastery of the learning objectives.

The **Teens CAN** lessons were implemented over an eight-week period, with two lessons taught per week, and CoP reflection in between. For the cooking lessons, the education and the culinary applications occurred on separate days. This provided time to role play skills before actually engaging with knives and other cooking tools.

For each lesson, two near-peer college interns facilitated the material, and one graduate student assessed fidelity. Additionally, one of the project leads attended each lesson to support the interns. The high school teacher was also present for each lesson. Throughout the curriculum's implementation CoP calls were conducted where everyone on the team attended. This provided space for best practice discussion.

What We Did

- ✓ In order to refresh skills developed during training, the near-peer intern facilitators held additional practices of the culinary applications the week before implementation. This provided an opportunity to finalize timing of meal preparation and identify if any ingredients needed to be prepared ahead of time.

Best Practice

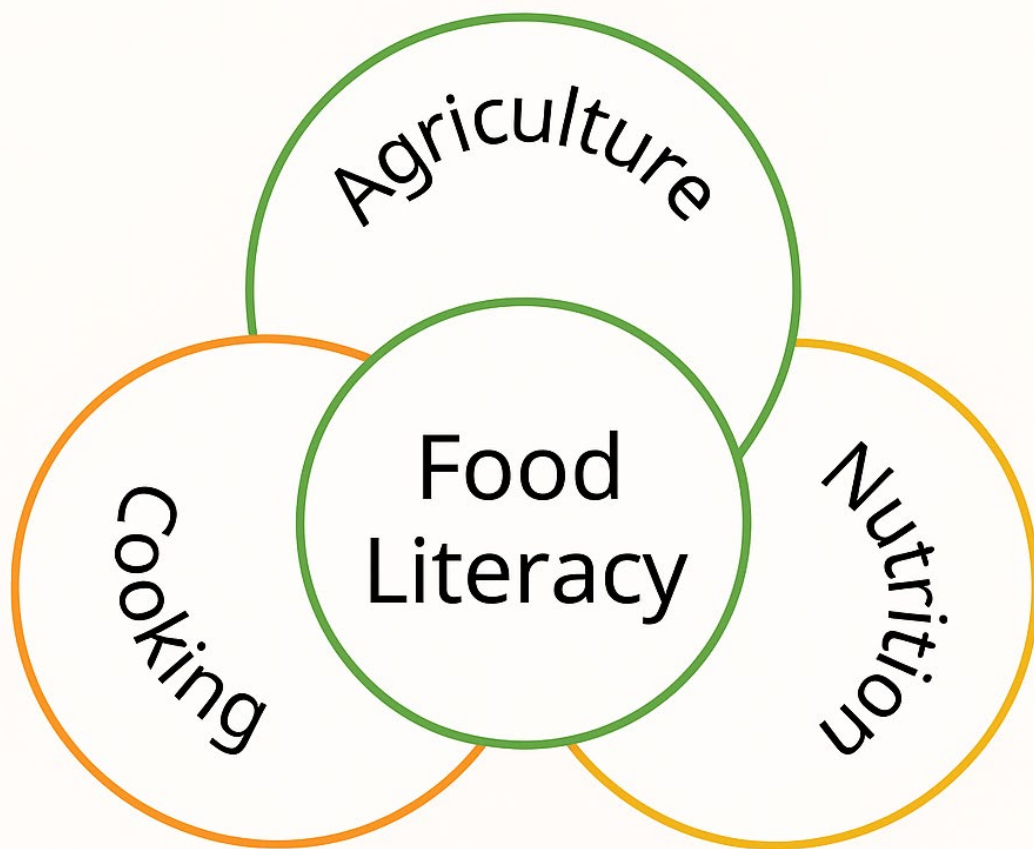
Meeting weekly after each lesson or after each topic area (e.g., Agriculture, Nutrition, or Cooking) provides formative evaluation to meet the learners' and facilitators' needs.

At the end of the **Teens CAN** curriculum implementation, post-tests were collected, fidelity assessments were evaluated, and interviews were conducted with the high school students, near-peer undergraduate interns, and the high school classroom teacher.

What We Did

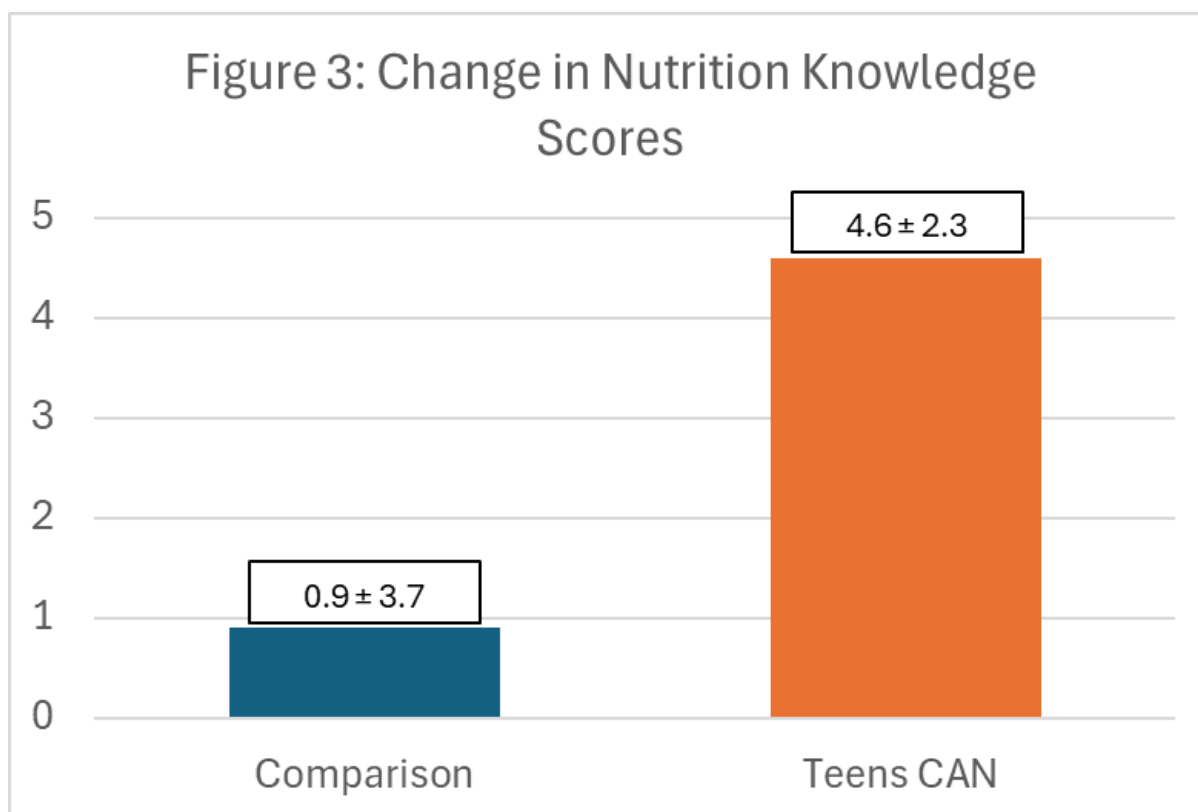
- ✓ The team met five times over the eight weeks to discuss learning experiences and suggested modifications. For example, observations were made about high school student engagement and comprehension so that future facilitators were aware of the high school group's strengths or challenges for their own lessons.

Results and Discussion



Results

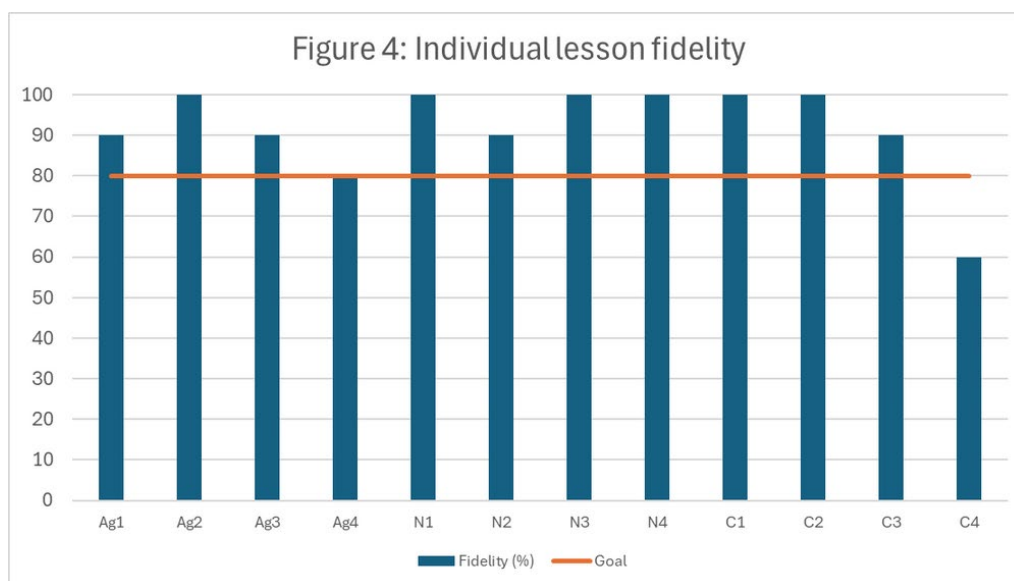
Results from the second phase of the pilot study indicated that compared to the comparison group (n = 15), students in the **Teens CAN** group (n = 10) had significant improvements in nutrition knowledge scores from pre- to post (Figure 3).



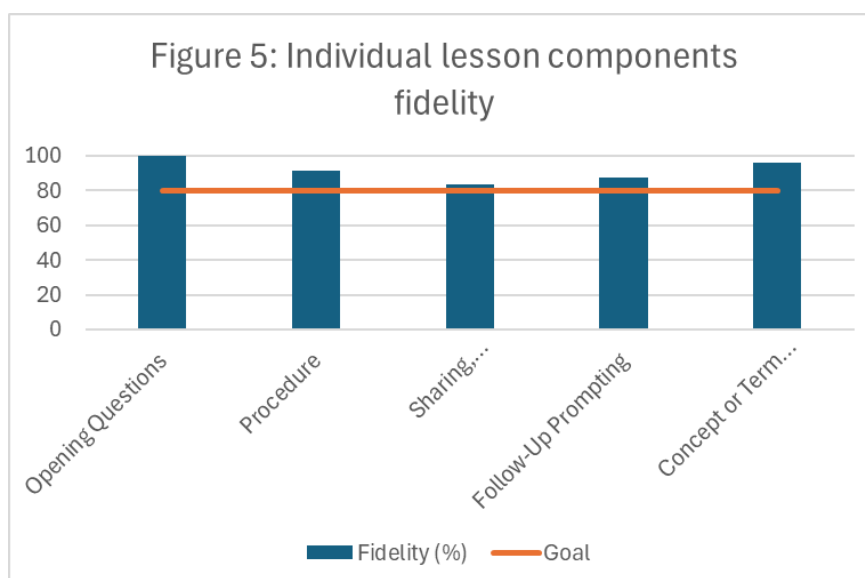
A multivariate regression was conducted on a composite health-promoting dietary behaviors score from the EATS questionnaire. This score served as the dependent variable, with the change in nutrition knowledge score as the independent variable, while controlling for baseline dietary behaviors. The composite health-promoting dietary behaviors score comprised reported fruit intake, vegetable intake, and subtracted sugar-sweetened beverage intake. The multivariate regression analysis indicated that improvements in dietary behaviors were significantly associated with increases in nutrition knowledge scores ($B = 0.33$, 95% CI: 0.03 to 0.63; $p = 0.033$), after controlling for baseline dietary behaviors.

Results

The overall mean for **Teens CAN** lesson fidelity was $91.7 \pm 14.4\%$. Lesson fidelity ranged from 60 to 100%, with the lowest fidelity observed in Cooking Lesson 4 (60%). The goal for fidelity is $\geq 80\%$ (Figure 4).²⁶



Specific components within each lesson were assessed for fidelity including a) opening questions, b) procedure, c) sharing, processing, and generalizing, d) follow-up prompting, and e) concept or term discovery. The individual lesson component fidelity achieved the 80% goal for each component (Figure 5).



Discussion

Teens CAN: Comprehensive Food Literacy in Cooking Agriculture, and Nutrition is a curriculum that has potential to impact high school students' health outcomes through an inquiry-based, experiential approach to food literacy education. Designed to engage youth, ***Teens CAN*** has demonstrated significant improvements in both nutrition knowledge and health-promoting dietary behaviors. These outcomes support ***Teens CAN*** as a best practice model for integrating hands-on food literacy education into high school settings to promote lifelong learning and healthy behaviors.

Potential Enhancements to *Teens* **CAN** Curriculum

Trauma-Informed Enhancements

Trauma-informed approaches in health and food literacy are meant to recognize that learners have diverse living experiences and may have experienced adverse life events that impact the way they learn, engage, and relate to food, health, and body image. Trauma-informed approaches emphasize trust and cultural sensitivity, which is meant to create a supportive learning environment that avoids re-traumatizing learners.²⁷

For each lesson, there may be enhancements to incorporate more trauma-informed approaches. ***Teens CAN*** was evaluated for its alignment with trauma-informed approaches by an external reviewer using a standardized assessment tool. Comments and enhancements are provided to offer choice and activities that build agency and self-efficacy while being mindful of the diverse lived experiences of the learners and facilitators. These enhancements are provided for those interested in utilizing a trauma-informed approach.

Transformative Social and Emotional Learning Competencies

In recent years, educators have begun to consider the Whole Child Approach, which posits that long-term student success requires a shift in focus from academic achievement alone to ensuring that every student is healthy, safe, engaged, supported, and challenged.²⁸

To support the Whole Child Approach, educators have turned to social and emotional learning (SEL) frameworks.

The SEL framework has five core competencies:

- Self-awareness: the ability to recognize one's own emotions, thoughts, values and understand how they influence behavior with subskills of cultivating a positive sense of identity;
- Self-management: the ability to regulate one's emotions, thoughts, and behaviors in different situations with subskills of agency in intentional choices that align with values and goals;
- Social awareness: the ability to take the perspective of and empathize with others from various backgrounds with subskills of fostering a sense of belonging in various spaces;

- Relationship skills: the ability to create and maintain supportive and healthy relationships; and
- Responsible decision-making: the ability to make caring and constructive choices about personal behavior with subskills such as reflection and analysis.

Using the SEL framework encourages the development of essential life skills such as self-awareness, decision-making, and social connection, which are essential to student well-being at all ages as well as important for supporting academic success.²⁹ In California, the Transformative Social Emotional Learning Constructs (T-SEL) are used with every age group to align with these competencies.

Teens CAN parallels T-SEL constructs in its emphasis on inquiry-based and experiential learning that cultivates student engagement, self-efficacy, and real-life skills. The curriculum promotes not only healthy behaviors but also responsible decision-making skills, which are part of SEL. All in all, this supports the Whole Child Approach by making students feel supported but also challenged, which may lead to empowerment in making healthy choices that extend throughout their life.

The identified constructs of T-SEL within **Teens CAN** were not aligned prior to the pilot study described above but are provided for those interested in adopting the T-SEL framework.

Lesson Best Practices and Enhancements

Agriculture Lesson 1: Farm to Market Marathon

This lesson introduces the food supply chain, showing how food travels from farms to consumers through various stages like harvesting, processing, distribution, and retail. Students use a hands-on strawberry activity to explore how food miles, direct marketing, and farmers markets affect freshness, sustainability, and producer income. The activity emphasizes the complexity of getting food from producers to plates and highlights local food systems.

Learning concept: Food supply chain

Learning objective: Youth will be able to organize components of the food supply chain.

Facilitator Recommendations for Implementation

- Introducing yourself to students can give a good first impression.
- Having strawberries and strawberry jam as a snack can make this lesson more tangible.
- Guiding students towards answers is encouraged over giving answers directly.
- Adding Velcro to the cards can make this activity more manageable.
- Filling in some steps in the grid ahead of time can assist students if they are struggling.

Social Emotional Learning

- **Social Awareness- Agency 3.G.4.:** Students identify and understand interconnected inequities in their community, state, and country and engage in civic, community, or service projects that support community empowerment and equity.
- **Self-Awareness-Belonging 1.E.4.:** Students can assess and analyze areas of need in their community and make a plan to contribute. Students can reflect on the quality and impact of their community service and civic engagement.

Trauma-Informed Components

- No additional enhancements recommended

Lesson Best Practices and Enhancements

Agriculture Lesson 2: Exploring Agricultural Systems

Students learn about diverse agricultural systems such as aquaponics, school gardens, conventional corn farming, and traditional Hopi dry farming. By comparing these systems, students gain insight into how agriculture varies based on environment, culture, resources, and technology. The activity also includes an outdoor exploration where students assess beneficial and harmful insects in their growing space.

Learning concept: Agricultural systems

Learning objective: Youth will be able to compare and contrast various agricultural systems.

Facilitator Recommendations for Implementation

- Guiding students through the cards first can make more complex economic/financial topics more understandable.
- Adding a game like Kahoot or other incentives can ensure concepts are grasped, especially when sharing back with the group.

Social Emotional Learning

- **Social Awareness-Agency 3.F.4.** Students are deepening their knowledge about how power and privilege can perpetuate inequities. Students understand the historical and ongoing individual and institutional impacts of bias, racism, misogyny, inequality, and patterns of injustice, including the rights of different groups.

Trauma-Informed Components

- No additional enhancements recommended

Agriculture Application 2

Facilitator Recommendations for Implementation

- Encouraging students to use phones (if they are allowed in the learning environment) to take photos of bugs can make the experience more engaging.

Lesson Best Practices and Enhancements

Agriculture Lesson 3: Innovating Agriculture

This lesson explores historical and current agricultural innovations, from the steam engine to Mason jars to vertical farming. Students build a timeline of inventions and then develop their own agricultural innovations to address challenges like drought or poor soil health. The activity shows how technology and science shape farming practices and influence sustainability.

Learning concepts: Agroecology, Technology

Learning objective: Youth will be able to assemble a timeline of the various movements and advancements that have shaped the food system today.

Facilitator Recommendations for Implementation

- Gauging whether students need more time to help understand/discuss the problem before starting the creative activity can improve activity success.

Social Emotional Learning

- **Relationship Skills-Agency 4.E.4.** Students recognize the value of collaborative problem solving and actively engaging in empathic listening, respectfully communicating, and honoring equity of voice in order to find solutions and achieve a common goal.

Trauma-Informed Components

- No additional enhancements recommended

Lesson Best Practices and Enhancements

Agriculture Lesson 4: Food Desert Overhaul

Students examine the impact of food deserts and food swamps on communities, focusing on food access, affordability, and nutrition. They simulate redesigning a neighborhood using a set budget and “remedy pieces” like community gardens, zoning laws, and improved transportation. This lesson blends agriculture, policy, and social equity to help youth envision healthier food environments.

Learning concepts: Food availability, Food access

Learning objective: Youth will be able to investigate deficits that exist in some food systems and ways to improve those deficits.

Facilitator Recommendations for Implementation

- Knowing your student population matters. For example, understanding if they prefer creative projects or mathematics more may help students to engage and participate.
- Allot time accordingly. This has been a favorite activity among all pilot students.

Social Emotional Learning

- **Self-Awareness-Belonging 1.E.4.:** Students can assess and analyze areas of need in their community and make a plan to contribute. Students can reflect on the quality and impact of their community service and civic engagement.
- **Self-Management-Identity 2.C.4.:** Students recognize the challenges of adverse life situations and the intersection of systems of injustice. Students leverage collective efficacy to cultivate resilience and hope.
- **Social Awareness-Belonging 3.D.4.:** Students identify and navigate different support networks. Students are advocates and allies for others' needs and recognize the interdependence of community resources.

- **Social Awareness-Agency 3.G.4.:** Students identify and understand interconnected inequities in their community, state, and country and engage in civic, community, or service projects that support community empowerment and equity.
- **Relationship Skills-Agency 4.E.4.:** Students recognize the value of collaborative problem solving and actively engaging in empathic listening, respectfully communicating, and honoring equity of voice in order to find solutions and achieve a common goal.
- **Responsible Decision Making-Identity 5.C.4.:** Students can assess, analyze, and develop a problem statement to personal, social, or political issues impacting their community. Students can approach such problems with a collaborative improvement-orientation.
- **Social Awareness-Agency 3.F.4.:** Students are deepening their knowledge about how power and privilege can perpetuate inequities. Students understand the historical and ongoing individual and institutional impacts of bias, racism, misogyny, inequality, and patterns of injustice, including the rights of different groups.
- **Responsible Decision Making-Belonging 5.E.4.:** Students recognize their role as civic-minded members of a democratic society. Students engage in civil discourse about current events and engage in advocacy and actions that promote care and community well-being.

Trauma-Informed Components

- During the food desert activity, the facilitator should remain diligent that the discussion continues to reinforce the goal of the activity and does not accidentally stigmatize school meals, EBT participation, etc.

Lesson Best Practices and Enhancements

Nutrition Lesson 1: Foundations of Nutrition

This lesson introduces the six nutrients: carbohydrates, proteins, fats, vitamins, minerals, and water, along with their roles in the body. Students learn how these nutrients support physical and mental health and identify food sources for each. Through interactive activities, students practice categorizing nutrients and begin building a foundation for healthy eating habits.

Learning concepts: *MyPlate*, Food Groups

Learning objective: Youth will be able to evaluate why consuming a variety of foods is needed to help an individual meet their daily food group recommendations.

Facilitator Recommendations for Implementation

- Having food models can help make this lesson more tangible.
- Encouraging students to consider building a meal for their own needs can make this lesson more applicable.

Social Emotional Learning

- **Self-Awareness-Identity 1.C.4.:** Students deepen their understanding of their own perspectives, values, beliefs, and mental models. Students critically examine and question their own perspectives and opinions.

Trauma-Informed Components

- During tracking activities and discussions, facilitators should reinforce the enjoyment of food, framing eating as positive. This can include talking about favorite foods or the taste of foods.

Lesson Best Practices and Enhancements

Nutrition Lesson 2: MyPlate and Meal Planning

Students explore the *MyPlate* recommendations as a model for balanced meals and proper portion sizes. The lesson includes practice in meal planning and encourages students to reflect on their own eating patterns. It reinforces the idea that nutritious meals can be affordable, culturally relevant, and enjoyable.

Learning concepts: Macronutrients, Micronutrients

Learning objective: Youth will be able to investigate which foods are good sources of different macronutrients and micronutrients utilizing the information provided on a Nutrition Facts Label.

Facilitator Recommendations for Implementation

- Providing background on reading food labels can help if the concept is unfamiliar to students.
- Knowing your student population's interests and prior knowledge is important.

Social Emotional Learning

- **Self-Awareness-Identity 1.C.4.:** Students deepen their understanding of their own perspectives, values, beliefs, and mental models. Students critically examine and question their own perspectives and opinions.

Trauma-Informed Components

- No additional enhancements recommended.

Lesson Best Practices and Enhancements

Nutrition Lesson 3: Reading Labels and Making Choices

This lesson empowers students to interpret food labels, including serving sizes, calories, and nutrient content, to make informed food choices. It also addresses misleading marketing, added sugars, and sodium content in packaged foods. Students gain critical thinking skills and apply them by evaluating real product labels.

Learning concept: Nutrients of concern for underconsumption

Learning objective: Youth will be able to evaluate why consuming a variety of foods is needed to meet recommendations for nutrients of concern.

Facilitator Recommendations for Implementation

- While students may enjoy hypothetical characters/scenarios, changing up the presentation/modality can help retain interest and engagement for students.

Social Emotional Learning

- **Self-Management-Identity 2.B.4.:** Students proactively prepare for potentially stressful situations, recognize when they are dysregulated or stressed and know how to pause in order to effectively respond. Students regularly participate in mental and physical health promoting activities and use a variety of self-care strategies that are safe, culturally relevant, and affirming.
- **Responsible Decision Making-Agency 5.F.4.:** Students demonstrate higher-order thinking skills (e.g., critical thinking, cognitive flexibility, analysis, integration) and show discernment, use of facts, and thoughtfulness in their decision-making. Students apply critical thinking in all aspects of their life and relationships, including interactions online.

Trauma-Informed Components

- No additional enhancements recommended

Lesson Best Practices and Enhancements

Nutrition Lesson 4: Health Disparities and Food Justice

Students examine how systemic inequities, including income, geography, and race, affect access to nutritious food and contribute to diet-related diseases. The lesson introduces concepts like health equity, environmental justice, and the role of policy in shaping community health. Students discuss local and national solutions to improve food systems and reduce disparities.

Learning concept: Nutrition in media

Learning objective: Youth will be able to analyze nutrition claims in the media and critique misleading information.

Facilitator Recommendations for Implementation

- Knowing your student population is important: artistic, creative students may enjoy this activity more and want more time.

Social Emotional Learning

- **Responsible Decision Making-Agency 5.F.4.:** Students demonstrate higher-order thinking skills (e.g., critical thinking, cognitive flexibility, analysis, integration) and show discernment, use of facts, and thoughtfulness in their decision-making. Students apply critical thinking in all aspects of their life and relationships, including interactions online.
- **Responsible Decision Making-Belonging 5.D.4.:** Students can accurately identify physical, intellectual, emotional, and social safety considerations for themselves and for others based on identity and social factors in real-world scenarios. Students accurately discern the difference between risky and safe behaviors and actions.
To achieve Self-Awareness-Agency 1.F.4.: Students can choose a target audience to advertise to and use code-switching to meet this group's communication needs. In the sharing, processing, and generalizing section, use the prompt about choosing what

information to share to also probe how they used the code-switching to reach their audience.

Trauma-Informed Components

- No additional enhancements recommended

Lesson Best Practices and Enhancements

Cooking Lesson 1: Kitchen Basics

This lesson covers kitchen safety, sanitation, and basic knife skills to ensure students are prepared to cook safely and confidently. Students learn how to set up a clean workspace, handle tools properly, and prevent foodborne illness. The focus is on building a strong foundation for future cooking activities.

Learning concept: Food safety

Learning objective: Youth will be able to identify and avoid potential food safety hazards.

Facilitator Recommendations for Implementation

- Encouraging students to teach GloGerm to younger youth can make them feel empowered as young educators.

Social Emotional Learning

- **Responsible Decision Making-Belonging 5.D.4.:** Students can accurately identify physical, intellectual, emotional, and social safety considerations for themselves and for others based on identity and social factors in real-world scenarios. Students accurately discern the difference between risky and safe behaviors and actions.

Trauma Informed Components

- No additional enhancements recommended

Culinary Application 1

Facilitator Recommendations for Implementation

- Checking that cooking stations and equipment are set up correctly before starting is crucial.
- Having teachers demonstrate silly acting for the charades game can make the activity more inclusive and comfortable for shy students.

Lesson Best Practices and Enhancements

Cooking Lesson 2: Cooking with Fruits and Vegetables

Students learn how to prepare seasonal fruits and vegetables using simple cooking techniques like chopping, roasting, and sautéing. The lesson connects cooking to nutrition by emphasizing the importance of incorporating more produce into meals. Students also explore taste, texture, and food preferences.

Learning concepts: Cooking equipment, Cooking Techniques

Learning objective: Youth will be able to demonstrate proper utilization of various cooking techniques and equipment.

Facilitator Recommendations for Implementation

- Checking in with groups can help make sure knife cuts are correct.

Social Emotional Learning

- **Responsible Decision Making-Belonging 5.D.4.:** Students can accurately identify physical, intellectual, emotional, and social safety considerations for themselves and for others based on identity and social factors in real-world scenarios. Students accurately discern the difference between risky and safe behaviors and actions.

Trauma-Informed Components

- No additional enhancements recommended

Culinary Application 2

Facilitator Recommendations for Implementation

- Allowing students to interact with ingredients in various forms (cooked vs uncooked) is important for an ideal learning experience. However, time may not allow for students to prepare each ingredient from scratch. Based on time allotment, some ingredients may need to be prepared ahead of time.

Lesson Best Practices and Enhancements

Cooking Lesson 3: Creating Balanced Meals

This lesson teaches students how to build a complete, balanced meal using *MyPlate* as a guide. They practice combining protein, grains, dairy (or milk alternatives), and fruits and vegetables into meals that are healthy, affordable, and satisfying. The activity emphasizes planning, budgeting, and cultural inclusivity in meal preparation.

Learning concepts: Seasonality, Budgeting

Learning objective: Youth will be able to plan meal options that incorporate budgetary needs and seasonal produce.

Facilitator Recommendations for Implementation

- Adjusting activities based on previous student experiences (including less/more math) can help make it enjoyable.
- Using Velcro poster boards and cards to “buy things” can improve the activity.

Social Emotional Learning

- **Self-Management-Agency 2.F.4.:** Students continuously strive toward meaningful, specific personal short- and long-term goals. Students contribute to collective goal setting and achievement by identifying Specific, Measurable, Actionable, Relevant, Time-bound, Equity-Focused (SMARTER) goals. Students use their voice and choice to demonstrate personal and collective agency
- **Self-Management-Agency 2.G.4:** Students identify and apply a variety of culturally relevant and identity affirming strategies to stay motivated and disciplined in order to persevere in achieving their goals.
- **Self-Management-Agency 2.H.4.:** Students proactively use several time management strategies to organize their class work, extracurricular activities, work, family responsibilities, and other commitments.

- **Self-Awareness-Agency 1.F.4.** Students deepen their understanding of brain and body connections and how behavior is shaped by culture and lived experiences. Students can assess and respond to their environment by choosing to code-switch.
- **Responsible Decision Making-Agency 5.F.4.:** Students demonstrate higher-order thinking skills (e.g., critical thinking, cognitive flexibility, analysis, integration) and show discernment, use of facts, and thoughtfulness in their decision-making. Students apply critical thinking in all aspects of their life and relationships, including interactions online.

Trauma-Informed Components

- No additional enhancements recommended

Culinary Application 3

Facilitator Recommendations for Implementation

- Encouraging students to try one new topping and one dressing can help expand their palate.
- Encouraging students to enjoy serving food to others can make this experience more meaningful.

Lesson Best Practices and Enhancements

Cooking Lesson 4: From Garden to Table

Students harvest or receive produce from a school or community garden and use it to prepare a dish, reinforcing the connection between growing food and cooking it. The lesson highlights sustainability, seasonality, and reducing food waste. Youth reflect on how food choices impact health, environment, and community well-being.

Learning concepts: Recipe Scaling, Serving and Portion Sizing

Learning objective: Youth will be able to plan a meal and calculate the cost per serving of that meal.

Facilitator Recommendations for Implementation

- Guiding students on calculations can help if they are struggling.
- Acknowledging feelings of frustration, but motivating them to persevere can improve their self-efficacy.
- Using fraction graphics can help students who struggle with math.

Social Emotional Learning

- **Self-Management-Agency 2.F.4.:** Students continuously strive toward meaningful, specific personal short- and long-term goals. Students contribute to collective goal setting and achievement by identifying Specific, Measurable, Actionable, Relevant, Time-bound, Equity-Focused (SMART-E) goals. Students use their voice and choice to demonstrate personal and collective agency
- **Self-Management-Agency 2.G.4.:** Students identify and apply a variety of culturally relevant and identity affirming strategies to stay motivated and disciplined in order to persevere in achieving their goals
- **Self-Management-Agency 2.H.4.:** Students proactively use several time management strategies to organize their class work, extracurricular activities, work, family responsibilities, and other commitments.

Trauma Informed Components

- No additional enhancements recommended

Culinary Application 4

Facilitator Recommendations for Implementation

- Encouraging students to serve community/school members can make the experience more enjoyable.

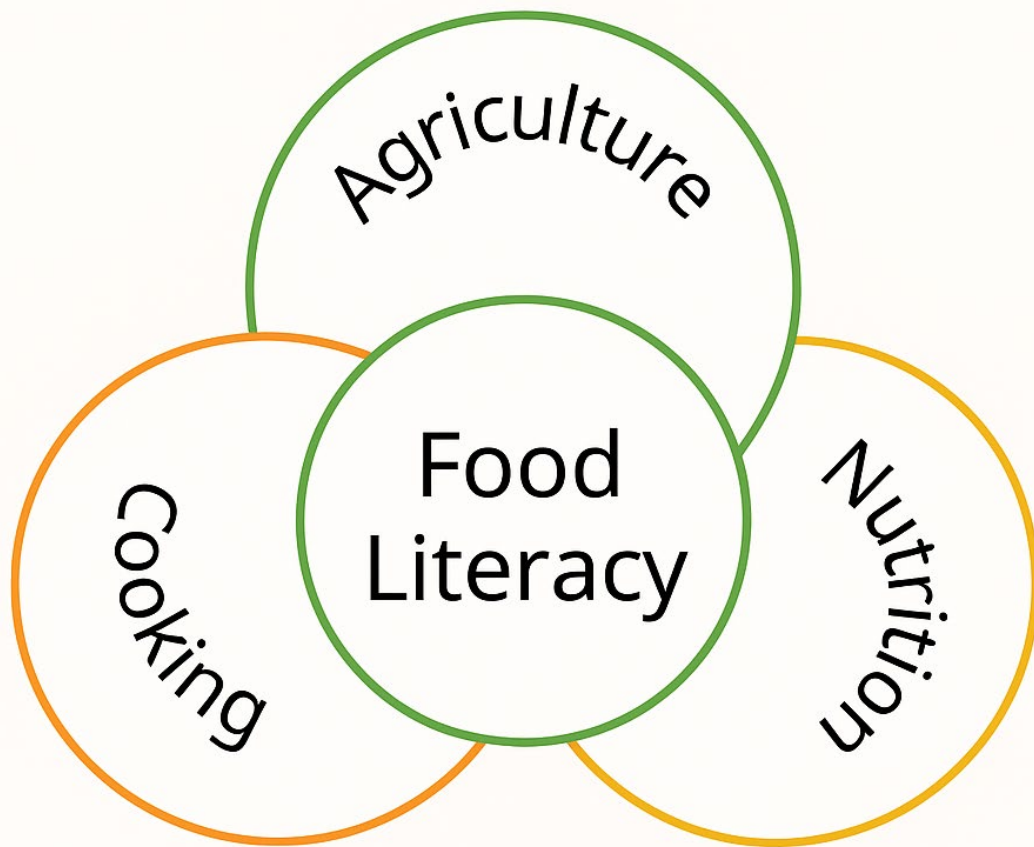
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Appendices



Appendix 1: Sample Professional Development Agenda

Day 1	Activity	Notes
9:00-10:15	Tour of Elkus Ranch and introductions	Full Team
10:15-10:30	Snack Break	
10:30-10:45	Internship Overview	Team Lead
10:45-11:30	Introduction to Inquiry and Experiential Pedagogy	Flying Apparatus Activity (Team Lead)
11:30-12:00	Introduction to Teens CAN	Team Lead
12:00-12:45	Lunch (Provided)	
12:45-2:00	Teens CAN Ag Lesson 2 and Ag Application	Team Lead
2:00-2:30	Reflections, Fidelity, and Data Collection	Two Team Leads
2:30-2:45	Snack Break	
2:45-3:30	Teens CAN Lesson Ag 4	Experienced Facilitators
3:30-3:45	Reflection and Discussion	Team Lead
3:45-4:30	Prep for tomorrow's lessons	
4:30-5:00	Review of Skipped Ag Lessons, Goals for Day 2	If there are more than 2 days available for the training, all lessons should be covered. If there are only 2 days available, use this time to discuss the lessons that were not covered.

Day 2	Activity	Notes
8:00-8:15	Introduction to Day 2	Two Team Leads
8:15-9:15	Teens CAN Cooking Lesson 1	New Facilitators
9:15-9:30	Reflection and Discussion	Team Lead
9:30-9:45	Snack Break	
9:45-10:45	Teens CAN Cooking Lesson 2	Pairing of experienced and new facilitator
10:45-11:00	Reflection and Discussion	Team Lead
11:00-12:00	Teens CAN Cooking Lesson 3	Pairing of experienced and new facilitator
12:00-12:15	Reflection and Discussion; Review of Skipped Nutrition Lesson	Team Lead
12:15-1:00	Lunch (Provided)	
1:00-2:00	Teens CAN Nutrition Lesson 1 with Application	Pairing of experienced and new facilitator
2:00-2:15	Reflection and Discussion	Team Lead
2:15-2:30	Snack Break	
2:30-3:30	Teens CAN Nutrition Lesson 2	New Facilitators
3:30-3:45	Reflection and Discussion	Team Lead
3:45-4:45	Teens CAN Nutrition Lesson 3	Pairing of experienced and new facilitator
4:45-5:00	Reflection and Discussion; Review of Skipped Cooking Lesson; Introduction of CoP; Overall training Plus/Delta	If there are more than 2 days available for the training, all lessons should be covered. If there are only 2 days available, use this time to discuss the lessons that were not covered.

Appendix 2: Fidelity Observation Sheets

Observer_____ Educator_____ Date_____

Activity A1 – Farm to Market Marathon

Program Fidelity

Curriculum Session	Program Fidelity	Notes
Opening Questions Time started: Time ended:	Asked opening questions ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Procedure (Experiencing) Time started: Time ended:	Conducted exploration of the food supply chain ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Sharing, Processing and Generalizing Time started: Time ended:	Youth shared and discussed their findings related to the food supply chain and what they learned ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum Facilitator followed up with prompts ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Concept or Term Discovery/Introduction Time started: Time ended:	Concepts and terms such as food supply chain, consumer, and producer were discovered by the youth or introduced by the facilitator ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Terms	☐ Food Supply Chain ☐ Producer ☐ Consumer ☐ Agriculture	☐ Direct Marketing ☐ Farmers Market ☐ Food Miles

Program Quality

Questioning Strategies

Ratio Open-Ended : Closed Questions	
Number of Open	Number of Closed
Examples of Questions Asked	
1	
2	
3	
4	
5	
6	

Evidence of open-ended questioning

Percentage of open –ended questions:

- ☐ Between 0 and 24%
- ☐ Between 25- 49%
- ☐ Between 50- 74%
- ☐ Between 75-100%

Level of youth engagement

- ☐ None of the youth are interested and engaged
- ☐ About 25% of youth are interested and engaged
- ☐ About 50% of youth are interested and engaged
- ☐ About 75% of youth are interested and engaged
- ☐ 100% of the youth are interested and engaged

Level of youth engagement

- ☐ Overall, youth look bored and/or preoccupied
- ☐ Overall, youth look attentive, but silent
- ☐ Overall, youth look attentive and engaged in discussion

Level of youth participation compared to leader participation

- ☐ Youth talked less than 25% of the time (teacher talked 75% or more)
- ☐ Youth talked about 50% of the time (teacher 50%)
- ☐ Youth talked more than 75% of the time (teacher 25% or less)

Concept discovery/introduction

- ☐ No concepts were discovered or introduced during the session
- ☐ Concepts were not discovered or discussed by youth, but partially introduced by the teacher
- ☐ Concepts were discovered and/or fully discussed by youth or teacher

Observer_____ Educator_____ Date_____

Activity A2 – Exploring Agricultural Systems

Program Fidelity

Curriculum Session	Program Fidelity	Notes
Opening Questions Time started: Time ended:	Asked opening questions ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Procedure (Experiencing) Time started: Time ended:	Conducted exploration of various agricultural systems ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Sharing, Processing and Generalizing Time started: Time ended:	Youth shared and discussed their assigned agricultural system and what they learned ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum Facilitator followed up with prompts ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Concept or Term Discovery/Introduction Time started: Time ended:	Concepts and terms such as aquaponics, school gardens, and natural resources were discovered by the youth or introduced by the facilitator ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Terms	☐ Agricultural Systems ☐ Agroclimate ☐ Aquaponics ☐ Conventional Corn Farming ☐ Hopi Tribe	☐ Hydroponics ☐ Natural Resources ☐ School Gardens ☐ Vertical Farming

Program Quality

Questioning Strategies

Ratio Open-Ended : Closed Questions	
Number of Open	Number of Closed
Examples of Questions Asked	
1	
2	
3	
4	
5	
6	

Evidence of open-ended questioning

Percentage of open –ended questions:

- ☐ Between 0 and 24%
- ☐ Between 25- 49%
- ☐ Between 50- 74%
- ☐ Between 75-100%

Level of youth engagement (1)

- ☐ None of the youth are interested and engaged
- ☐ About 25% of youth are interested and engaged
- ☐ About 50% of youth are interested and engaged
- ☐ About 75% of youth are interested and engaged
- ☐ 100% of the youth are interested and engaged

Level of youth engagement (2)

- ☐ Overall, youth look bored and/or preoccupied
- ☐ Overall, youth look attentive, but silent
- ☐ Overall, youth look attentive and engaged in discussion

Level of youth participation compared to leader participation

- ☐ Youth talked less than 25% of the time (teacher talked 75% or more)
- ☐ Youth talked about 50% of the time (teacher 50%)
- ☐ Youth talked more than 75% of the time (teacher 25% or less)

Concept discovery/introduction

- ☐ No concepts were discovered or introduced during the session
- ☐ Concepts were not discovered or discussed by youth, but partially introduced by the teacher
- ☐ Concepts were discovered and/or fully discussed by youth or teacher

Observer _____ Educator _____ Date _____

Activity A3 – Innovating Agriculture

Program Fidelity

Curriculum Session	Program Fidelity	Notes
Opening Questions Time started: Time ended:	Asked opening questions ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Procedure (Experiencing) Time started: Time ended:	Conducted exploration of various agricultural innovations ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Sharing, Processing and Generalizing Time started: Time ended:	Youth shared and discussed their agricultural innovation and what they learned ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum Facilitator followed up with prompts ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Concept or Term Discovery/Introduction Time started: Time ended:	Concepts and terms such as agroecology, GMOs, and nitrogen fixation, were discovered by the youth or introduced by the facilitator ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Terms	☐ Agroecology ☐ Drought ☐ Genetically Modified Organisms (GMOs) ☐ Global Positioning System (GPS) ☐ Nitrogen Fixation ☐ Pesticide ☐ Pesticide Resistance ☐ Soil Health ☐ Urban Sprawl	

Program Quality

Questioning Strategies

Ratio Open-Ended : Closed Questions	
Number of Open	Number of Closed
Examples of Questions Asked	
1	
2	
3	
4	
5	
6	

Evidence of open-ended questioning

Percentage of open –ended questions:

- ☐ Between 0 and 24%
- ☐ Between 25- 49%
- ☐ Between 50- 74%
- ☐ Between 75-100%

Level of youth engagement (1)

- ☐ None of the youth are interested and engaged
- ☐ About 25% of youth are interested and engaged
- ☐ About 50% of youth are interested and engaged
- ☐ About 75% of youth are interested and engaged
- ☐ 100% of the youth are interested and engaged

Level of youth engagement (2)

- ☐ Overall, youth look bored and/or preoccupied
- ☐ Overall, youth look attentive, but silent
- ☐ Overall, youth look attentive and engaged in discussion

Level of youth participation compared to leader participation

- ☐ Youth talked less than 25% of the time (teacher talked 75% or more)
- ☐ Youth talked about 50% of the time (teacher 50%)
- ☐ Youth talked more than 75% of the time (teacher 25% or less)

Concept discovery/introduction

- ☐ No concepts were discovered or introduced during the session
- ☐ Concepts were not discovered or discussed by youth, but partially introduced by the teacher
- ☐ Concepts were discovered and/or fully discussed by youth or teacher

Observer _____ Educator _____ Date _____

Activity A4 – Food Desert Overhaul

Program Fidelity

Curriculum Session	Program Fidelity	Notes
Opening Questions Time started: Time ended:	Asked opening questions ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Procedure (Experiencing) Time started: Time ended:	Conducted exploration of food deserts and potential remedies ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Sharing, Processing and Generalizing Time started: Time ended:	Youth shared and discussed their renovated neighborhoods and what they learned ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum Facilitator followed up with prompts ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Concept or Term Discovery/Introduction Time started: Time ended:	Concepts and terms such as food desert, food access, food availability were discovered by the youth or introduced by the facilitator ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Terms	☐ Community Food Gardens ☐ Farmers Market ☐ Food Access ☐ Food Affordability ☐ Food Availability ☐ Food Deserts ☐ Food Swamps ☐ Health Zoning Laws	

Program Quality

Questioning Strategies

Ratio Open-Ended : Closed Questions	
Number of Open	Number of Closed
Examples of Questions Asked	
1	
2	
3	
4	
5	
6	

Evidence of open-ended questioning

Percentage of open –ended questions:

- ☐ Between 0 and 24%
- ☐ Between 25- 49%
- ☐ Between 50- 74%
- ☐ Between 75-100%

Level of youth engagement (1)

- ☐ None of the youth are interested and engaged
- ☐ About 25% of youth are interested and engaged
- ☐ About 50% of youth are interested and engaged
- ☐ About 75% of youth are interested and engaged
- ☐ 100% of the youth are interested and engaged

Level of youth engagement (2)

- ☐ Overall, youth look bored and/or preoccupied
- ☐ Overall, youth look attentive, but silent
- ☐ Overall, youth look attentive and engaged in discussion

Level of youth participation compared to leader participation

- ☐ Youth talked less than 25% of the time (teacher talked 75% or more)
- ☐ Youth talked about 50% of the time (teacher 50%)
- ☐ Youth talked more than 75% of the time (teacher 25% or less)

Concept discovery/introduction

- ☐ No concepts were discovered or introduced during the session
- ☐ Concepts were not discovered or discussed by youth, but partially introduced by the teacher
- ☐ Concepts were discovered and/or fully discussed by youth or teacher

Observer _____ Educator _____ Date _____

Activity N1 – Your Plate Vs. MyPlate

Program Fidelity

Curriculum Session	Program Fidelity	Notes
Opening Questions Time started: Time ended:	Asked opening questions ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Procedure (Experiencing) Time started: Time ended:	Conducted exploration of food groups and MyPlate recommendations ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Sharing, Processing and Generalizing Time started: Time ended:	Youth shared and discussed their characters' eating patterns and what they learned ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum Facilitator followed up with prompts ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Concept or Term Discovery/Introduction Time started: Time ended:	Concepts and terms such as MyPlate, food groups, and activity level were discovered by the youth or introduced by the facilitator ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Terms	☐ Dairy ☐ Eating Pattern ☐ Food Groups ☐ Fruits ☐ Grains ☐ Moderate Activity Level ☐ MyPlate	☐ Oils ☐ Physical Activity Intensity Level ☐ Protein Foods ☐ Sedentary Activity Level ☐ Vegetables ☐ Vigorous Activity Level

Program Quality

Questioning Strategies

Ratio Open-Ended : Closed Questions	
Number of Open	Number of Closed
Examples of Questions Asked	
1	
2	
3	
4	
5	
6	

Evidence of open-ended questioning

Percentage of open –ended questions:

- ☐ Between 0 and 24%
- ☐ Between 25- 49%
- ☐ Between 50- 74%
- ☐ Between 75-100%

Level of youth engagement (1)

- ☐ None of the youth are interested and engaged
- ☐ About 25% of youth are interested and engaged
- ☐ About 50% of youth are interested and engaged
- ☐ About 75% of youth are interested and engaged
- ☐ 100% of the youth are interested and engaged

Level of youth engagement (2)

- ☐ Overall, youth look bored and/or preoccupied
- ☐ Overall, youth look attentive, but silent
- ☐ Overall, youth look attentive and engaged in discussion

Level of youth participation compared to leader participation

- ☐ Youth talked less than 25% of the time (teacher talked 75% or more)
- ☐ Youth talked about 50% of the time (teacher 50%)
- ☐ Youth talked more than 75% of the time (teacher 25% or less)

Concept discovery/introduction

- ☐ No concepts were discovered or introduced during the session
- ☐ Concepts were not discovered or discussed by youth, but partially introduced by the teacher
- ☐ Concepts were discovered and/or fully discussed by youth or teacher

Observer_____ Educator_____ Date_____

Activity N2 – Read It to Eat It

Program Fidelity

Curriculum Session	Program Fidelity	Notes
Opening Questions Time started: Time ended:	Asked opening questions ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Procedure (Experiencing) Time started: Time ended:	Conducted exploration of nutrients and Nutrition Facts Labels ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Sharing, Processing and Generalizing Time started: Time ended:	Youth shared and discussed good sources of different nutrients and what they learned ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum Facilitator followed up with prompts ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Concept or Term Discovery/Introduction Time started: Time ended:	Concepts and terms such as macronutrients, micronutrients, and Nutrition Facts Labels were discovered by the youth or introduced by the facilitator ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Terms	☐ Carbohydrate ☐ Dietary Fiber ☐ Fat ☐ Fortification ☐ Macronutrient ☐ Micronutrient ☐ Minerals	☐ Nutrient ☐ Nutrition Facts Label ☐ Percent Daily Value ☐ Protein ☐ Serving size ☐ Vitamins

Program Quality

Questioning Strategies

Ratio Open-Ended : Closed Questions	
Number of Open	Number of Closed
Examples of Questions Asked	
1	
2	
3	
4	
5	
6	

Evidence of open-ended questioning

Percentage of open –ended questions:

- ☐ Between 0 and 24%
- ☐ Between 25- 49%
- ☐ Between 50- 74%
- ☐ Between 75-100%

Level of youth engagement (1)

- ☐ None of the youth are interested and engaged
- ☐ About 25% of youth are interested and engaged
- ☐ About 50% of youth are interested and engaged
- ☐ About 75% of youth are interested and engaged
- ☐ 100% of the youth are interested and engaged

Level of youth engagement (2)

- ☐ Overall, youth look bored and/or preoccupied
- ☐ Overall, youth look attentive, but silent
- ☐ Overall, youth look attentive and engaged in discussion

Level of youth participation compared to leader participation

- ☐ Youth talked less than 25% of the time (teacher talked 75% or more)
- ☐ Youth talked about 50% of the time (teacher 50%)
- ☐ Youth talked more than 75% of the time (teacher 25% or less)

Concept discovery/introduction

- ☐ No concepts were discovered or introduced during the session
- ☐ Concepts were not discovered or discussed by youth, but partially introduced by the teacher
- ☐ Concepts were discovered and/or fully discussed by youth or teacher

Observer _____ Educator _____ Date _____

Activity N3 – Nutrition for All

Program Fidelity

Curriculum Session	Program Fidelity	Notes
Opening Questions Time started: Time ended:	Asked opening questions ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Procedure (Experiencing) Time started: Time ended:	Conducted exploration of nutrients of concern and nutrient recommendations ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Sharing, Processing and Generalizing Time started: Time ended:	Youth shared and discussed recommendations for nutrients of concern and what they learned ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum Facilitator followed up with prompts ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Concept or Term Discovery/Introduction Time started: Time ended:	Concepts and terms such as nutrients of concern, DRIs, and nutrient density were discovered by the youth or introduced by the facilitator ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Terms	☐ Calcium ☐ Dietary Fiber ☐ Dietary Reference Intakes (DRIs) ☐ Fortification ☐ Iron ☐ Macronutrient ☐ Metabolism	☐ Micronutrient ☐ Nutrient ☐ Nutrient Composition ☐ Nutrient-Dense ☐ Nutrient of Concern ☐ Potassium ☐ Supplement ☐ Vitamin D

Program Quality

Questioning Strategies

Ratio Open-Ended : Closed Questions	
Number of Open	Number of Closed
Examples of Questions Asked	
1	
2	
3	
4	
5	
6	

Evidence of open-ended questioning

Percentage of open –ended questions:

- ☐ Between 0 and 24%
- ☐ Between 25- 49%
- ☐ Between 50- 74%
- ☐ Between 75-100%

Level of youth engagement (1)

- ☐ None of the youth are interested and engaged
- ☐ About 25% of youth are interested and engaged
- ☐ About 50% of youth are interested and engaged
- ☐ About 75% of youth are interested and engaged
- ☐ 100% of the youth are interested and engaged

Level of youth engagement (2)

- ☐ Overall, youth look bored and/or preoccupied
- ☐ Overall, youth look attentive, but silent
- ☐ Overall, youth look attentive and engaged in discussion

Level of youth participation compared to leader participation

- ☐ Youth talked less than 25% of the time (teacher talked 75% or more)
- ☐ Youth talked about 50% of the time (teacher 50%)
- ☐ Youth talked more than 75% of the time (teacher 25% or less)

Concept discovery/introduction

- ☐ No concepts were discovered or introduced during the session
- ☐ Concepts were not discovered or discussed by youth, but partially introduced by the teacher
- ☐ Concepts were discovered and/or fully discussed by youth or teacher

Observer_____ Educator_____ Date_____

Activity N4 – Fact or Fiction

Program Fidelity

Curriculum Session	Program Fidelity	Notes
Opening Questions Time started: Time ended:	Asked opening questions ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Procedure (Experiencing) Time started: Time ended:	Conducted exploration of marketing strategies and nutrition media ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Sharing, Processing and Generalizing Time started: Time ended:	Youth shared and discussed nutrition advertisements and what they learned ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum Facilitator followed up with prompts ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Concept or Term Discovery/Introduction Time started: Time ended:	Concepts and terms such as marketing strategies and reliable resources were discovered by the youth or introduced by the facilitator ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Terms	☐ Advertisement ☐ Appeal ☐ Branding ☐ Consumer ☐ Marketing strategies ☐ Promotion ☐ Publicity ☐ Reliable Resources	

Program Quality

Questioning Strategies

Ratio Open-Ended : Closed Questions	
Number of Open	Number of Closed
Examples of Questions Asked	
1	
2	
3	
4	
5	
6	

Evidence of open-ended questioning

Percentage of open –ended questions:

- ☐ Between 0 and 24%
- ☐ Between 25- 49%
- ☐ Between 50- 74%
- ☐ Between 75-100%

Level of youth engagement (1)

- ☐ None of the youth are interested and engaged
- ☐ About 25% of youth are interested and engaged
- ☐ About 50% of youth are interested and engaged
- ☐ About 75% of youth are interested and engaged
- ☐ 100% of the youth are interested and engaged

Level of youth engagement (2)

- ☐ Overall, youth look bored and/or preoccupied
- ☐ Overall, youth look attentive, but silent
- ☐ Overall, youth look attentive and engaged in discussion

Level of youth participation compared to leader participation

- ☐ Youth talked less than 25% of the time (teacher talked 75% or more)
- ☐ Youth talked about 50% of the time (teacher 50%)
- ☐ Youth talked more than 75% of the time (teacher 25% or less)

Concept discovery/introduction

- ☐ No concepts were discovered or introduced during the session
- ☐ Concepts were not discovered or discussed by youth, but partially introduced by the teacher
- ☐ Concepts were discovered and/or fully discussed by youth or teacher

Observer _____ Educator _____ Date _____

Activity C1 – Fact or Fiction

Program Fidelity

Curriculum Session	Program Fidelity	Notes
Opening Questions Time started: Time ended:	Asked opening questions ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Procedure (Experiencing) Time started: Time ended:	Conducted exploration of food safety practices ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Sharing, Processing and Generalizing Time started: Time ended:	Youth shared and discussed food safety practices and what they learned ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum Facilitator followed up with prompts ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Concept or Term Discovery/Introduction Time started: Time ended:	Concepts and terms such as cross-contamination, food safety, and foodborne illness were discovered by the youth or introduced by the facilitator ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Terms	☐ Bacteria ☐ Cross-Contamination ☐ Danger Zone ☐ Foodborne Illness ☐ Food Safety	

Program Quality

Questioning Strategies

Ratio Open-Ended : Closed Questions	
Number of Open	Number of Closed
Examples of Questions Asked	
1	
2	
3	
4	
5	
6	

Evidence of open-ended questioning

Percentage of open –ended questions:

- ☐ Between 0 and 24%
- ☐ Between 25- 49%
- ☐ Between 50- 74%
- ☐ Between 75-100%

Level of youth engagement (1)

- ☐ None of the youth are interested and engaged
- ☐ About 25% of youth are interested and engaged
- ☐ About 50% of youth are interested and engaged
- ☐ About 75% of youth are interested and engaged
- ☐ 100% of the youth are interested and engaged

Level of youth engagement (2)

- ☐ Overall, youth look bored and/or preoccupied
- ☐ Overall, youth look attentive, but silent
- ☐ Overall, youth look attentive and engaged in discussion

Level of youth participation compared to leader participation

- ☐ Youth talked less than 25% of the time (teacher talked 75% or more)
- ☐ Youth talked about 50% of the time (teacher 50%)
- ☐ Youth talked more than 75% of the time (teacher 25% or less)

Concept discovery/introduction

- ☐ No concepts were discovered or introduced during the session
- ☐ Concepts were not discovered or discussed by youth, but partially introduced by the teacher
- ☐ Concepts were discovered and/or fully discussed by youth or teacher

Observer_____ Educator_____ Date_____

Activity C2 – Chop, Chop, Dice

Program Fidelity

Curriculum Session	Program Fidelity	Notes
Opening Questions Time started: Time ended:	Asked opening questions ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Procedure (Experiencing) Time started: Time ended:	Conducted exploration of cooking techniques and equipment ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Sharing, Processing and Generalizing Time started: Time ended:	Youth shared and discussed cooking skills and safety and what they learned ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum Facilitator followed up with prompts ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Concept or Term Discovery/Introduction Time started: Time ended:	Concepts and terms such as knife safety, dicing, cooking techniques were discovered by the youth or introduced by the facilitator ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Terms	☐ Boiling ☐ Chopping ☐ Cooking Techniques ☐ Dice ☐ Knife Safety ☐ Mincing ☐ Mise en place ☐ Sauteing ☐ Slicing ☐ The Draw	

Program Quality

Questioning Strategies

Ratio Open-Ended : Closed Questions	
Number of Open	Number of Closed
Examples of Questions Asked	
1	
2	
3	
4	
5	
6	

Evidence of open-ended questioning

Percentage of open –ended questions:

- ☐ Between 0 and 24%
- ☐ Between 25- 49%
- ☐ Between 50- 74%
- ☐ Between 75-100%

Level of youth engagement (1)

- ☐ None of the youth are interested and engaged
- ☐ About 25% of youth are interested and engaged
- ☐ About 50% of youth are interested and engaged
- ☐ About 75% of youth are interested and engaged
- ☐ 100% of the youth are interested and engaged

Level of youth engagement (2)

- ☐ Overall, youth look bored and/or preoccupied
- ☐ Overall, youth look attentive, but silent
- ☐ Overall, youth look attentive and engaged in discussion

Level of youth participation compared to leader participation

- ☐ Youth talked less than 25% of the time (teacher talked 75% or more)
- ☐ Youth talked about 50% of the time (teacher 50%)
- ☐ Youth talked more than 75% of the time (teacher 25% or less)

Concept discovery/introduction

- ☐ No concepts were discovered or introduced during the session
- ☐ Concepts were not discovered or discussed by youth, but partially introduced by the teacher
- ☐ Concepts were discovered and/or fully discussed by youth or teacher

Observer _____ Educator _____ Date _____

Activity C3 – Shopping with the Seasons

Program Fidelity

Curriculum Session	Program Fidelity	Notes
Opening Questions Time started: Time ended:	Asked opening questions ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Procedure (Experiencing) Time started: Time ended:	Conducted exploration of seasonal grocery shopping ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Sharing, Processing and Generalizing Time started: Time ended:	Youth shared and discussed budgets and shopping lists and what they learned ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum Facilitator followed up with prompts ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Concept or Term Discovery/Introduction Time started: Time ended:	Concepts and terms such as budget, seasonality, and meal planning were discovered by the youth or introduced by the facilitator ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Terms	☐ Budget ☐ Buying in Bulk ☐ Conventional Produce ☐ Economical Grocery Shopping ☐ Meal Planning ☐ Organic Produce ☐ Seasonal Produce	

Program Quality

Questioning Strategies

Ratio Open-Ended : Closed Questions	
Number of Open	Number of Closed
Examples of Questions Asked	
1	
2	
3	
4	
5	
6	

Evidence of open-ended questioning

Percentage of open –ended questions:

- ☐ Between 0 and 24%
- ☐ Between 25- 49%
- ☐ Between 50- 74%
- ☐ Between 75-100%

Level of youth engagement (1)

- ☐ None of the youth are interested and engaged
- ☐ About 25% of youth are interested and engaged
- ☐ About 50% of youth are interested and engaged
- ☐ About 75% of youth are interested and engaged
- ☐ 100% of the youth are interested and engaged

Level of youth engagement (2)

- ☐ Overall, youth look bored and/or preoccupied
- ☐ Overall, youth look attentive, but silent
- ☐ Overall, youth look attentive and engaged in discussion

Level of youth participation compared to leader participation

- ☐ Youth talked less than 25% of the time (teacher talked 75% or more)
- ☐ Youth talked about 50% of the time (teacher 50%)
- ☐ Youth talked more than 75% of the time (teacher 25% or less)

Concept discovery/introduction

- ☐ No concepts were discovered or introduced during the session
- ☐ Concepts were not discovered or discussed by youth, but partially introduced by the teacher
- ☐ Concepts were discovered and/or fully discussed by youth or teacher

Observer_____ Educator_____ Date_____

Activity C4 – Food Fractioning

Program Fidelity

Curriculum Session	Program Fidelity	Notes
Opening Questions Time started: Time ended:	Asked opening questions ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Procedure (Experiencing) Time started: Time ended:	Conducted exploration of serving versus portion sizes ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Sharing, Processing and Generalizing Time started: Time ended:	Youth shared and discussed prices per portion and what they learned ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum Facilitator followed up with prompts ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Concept or Term Discovery/Introduction Time started: Time ended:	Concepts and terms such as portion size, serving size, and recipe scaling were discovered by the youth or introduced by the facilitator ☐ Did not do ☐ Partially delivered according to curriculum ☐ Fully delivered according to curriculum	
Terms	☐ Nutrition Facts Label ☐ Serving Size ☐ Portion Size ☐ Recipe Scaling	

Program Quality

Questioning Strategies

Ratio Open-Ended : Closed Questions	
Number of Open	Number of Closed
Examples of Questions Asked	
1	
2	
3	
4	
5	
6	

Evidence of open-ended questioning

Percentage of open –ended questions:

- ☐ Between 0 and 24%
- ☐ Between 25- 49%
- ☐ Between 50- 74%
- ☐ Between 75-100%

Level of youth engagement (1)

- ☐ None of the youth are interested and engaged
- ☐ About 25% of youth are interested and engaged
- ☐ About 50% of youth are interested and engaged
- ☐ About 75% of youth are interested and engaged
- ☐ 100% of the youth are interested and engaged

Level of youth engagement (2)

- ☐ Overall, youth look bored and/or preoccupied
- ☐ Overall, youth look attentive, but silent
- ☐ Overall, youth look attentive and engaged in discussion

Level of youth participation compared to leader participation

- ☐ Youth talked less than 25% of the time (teacher talked 75% or more)
- ☐ Youth talked about 50% of the time (teacher 50%)
- ☐ Youth talked more than 75% of the time (teacher 25% or less)

Concept discovery/introduction

- ☐ No concepts were discovered or introduced during the session
- ☐ Concepts were not discovered or discussed by youth, but partially introduced by the teacher
- ☐ Concepts were discovered and/or fully discussed by youth or teacher