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Emilie E McClintic

August 1, 2016 Date Planting Seeds of Mindfulness in Northwest Atlanta: A Food-Literacy and Empowerment Program for African American Youth

By

Emilie McClintic Master of Public Health Department of Global Health

Amy Webb-Girard, PhD Committee Chair Planting Seeds of Mindfulness in Northwest Atlanta: A Food-Literacy and Empowerment Program for African American Youth

By

Emilie McClintic Bachelor of Art, Art History/French Language & Literature Boston University 2008

Thesis Committee Chair: Amy Webb-Girard, PhD

An abstract of A thesis submitted to the Faculty of the Rollins School of Public Health of Emory University in partial fulfillment of the requirements for the degree of Master of Public Health In Global Health 2016

#### Abstract

Planting Seeds of Mindfulness in Northwest Atlanta: A Food-Literacy and Empowerment Program for African American Youth By: Emilie McClintic

**Background:** Food insecurity and the associated health consequences is a serious social justice issue for minority populations in the Southern United States.<sup>1</sup> African American children disproportionately experience poverty in the U.S., leaving them more vulnerable to inadequate nutrition. This is of particular concern because food insecurity and inadequate nutrition can be extremely detrimental to a child's health and development. In the state of Georgia, more than 1 in 4 children live in food insecure households.<sup>2</sup> Public health professionals need to prioritize programs that address food justice issues and nutritional inadequacy from multiple angles, including through community-based education programs. Food literacy programs rooted in empowerment theory and critical pedagogy have great potential for building necessary skills and knowledge that will help food insecure youth of color navigate a compromised food system.

**Curriculum:** The author created this curriculum in partnership with the growers of Grow Where You Are based on the request of the Emory University, Urban Health Initiative. A pilot program was run in Spring 2016, to assess the acceptability and efficacy of program activities. The curriculum is comprised of 12 sessions, focused on addressing the four key components of food literacy: *planning/management*, *selection*, *preparation*, and *consumption*; and four critical aspects of the food/agriculture system: *production*, *sales*, *preparation*, and *consumption*. The curriculum includes facilitator instructions for implementation based on the pilot run of the program, as well as materials and guidelines for program evaluation.

**Conclusion:** The curriculum is ready to be used by educators or by growers for implementation in African American communities. Prior to implementation, recommendations based on the experiences during the pilot program should be taken into consideration.

<sup>&</sup>lt;sup>1</sup> American Civil Liberties Union, Unshared Bounty: How Structural Racism Contributes to the Creation and Persistence of Food Deserts. June 2012. (accessed June 2016)

<sup>&</sup>lt;sup>2</sup> Hunger in America 2014 Report. Retrieved on July 20, 2016, from http://www.acfb.org/sites/default/files/hunger-in-america-2014-full-report.pdf?\_ga=1.43806629.1806158545.1467855001.

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## **Chapter I: Introduction**

The interest in food literacy and food systems education programs in our nation is on the rise, as health professionals continue to combat overweight and obesity and the associated health risks. There remain many interpretations of how to define food literacy today<sup>3</sup>. According to foodliteracycenter.org, it is the "understanding of the impact of ones food choices on health, the environment, and on the economy"<sup>4</sup>. The new interest in food literacy relates to the recognition that our disconnection from the food system and from the foods that we consume has taken a toll on our nation's health<sup>5</sup>. In addition to this disconnect, food insecurity remains a particular concern throughout the country and many communities continue to go without access to whole and healthy foods. The USDA estimated that about 17.4 million households are defined as food insecure, or having limited access to adequate food and nutrition due to cost, proximity and/or other resources.<sup>6</sup> The reinvigoration of farm to school programs has been an encouraging trend for many public health and education professionals, as research has shown positive results related to increase fruit and vegetable consumption. However, the exploration of food literacy programs in the United States remains limited, especially program working with African American youth in urban settings.

This special studies project aimed to develop a food literacy and empowerment education curriculum for African American youth. The curriculum was developed in partnership with the urban farmers from Grow Where You Are and was informed by a four-week pilot program run with youth in Northwest Atlanta in the spring of 2016.

<sup>&</sup>lt;sup>3</sup> Vidgen H &Gallegos D. What is food literacy and does it influence what we eat: a study of Australian food experts. (2011). Queensland University of Technology, Brisbane, Queensland.

<sup>&</sup>lt;sup>4</sup> Food literacy Center. 2015. Retrieved July 2016, from http://www.foodliteracycenter.org/what-food-literacy

<sup>&</sup>lt;sup>5</sup> Region of Waterloo Public Health: Food skills of Waterloo region adults. 2009. Retrieved July 2, 2016, from [http://chd.region.waterloo.on.ca/en/healthylivinghealthprotection/foodskills.asp]

<sup>&</sup>lt;sup>6</sup> Coleman-Jensen A, Rabbitt MP, Gregory C, Singh A. <u>Household Food Security in the United States in 2014</u>, ERR-194, U.S. Department of Agriculture, Economic Research Service, September 2015. (accessed June 2016).

The curriculum outlined in this thesis is designed to assist educators that want bring food literacy education to their learners in an urban setting. The activities in this curriculum are grounded in experiential learning theory and critical race pedagogy. Experiential learning theory assumes that learners are not merely passive recipients of knowledge, but rather that they construct their own knowledge through their interactions with the environment. This pedagogical approach is ideal for supplementary youth education, such as after-school programs. The activities in this curriculum are focused on learning by doing and experiencing the environment and on reflections on these experiences. The curriculum incorporates a number of field trips and guest facilitators to provide learners with the opportunity to experience and interact with the many places and people intertwined into their food system. This curriculum recognizes that there are many limitations to food literacy programs when working in a food insecure population and aims to address these limitations by focusing on aspects of food, nutrition, wellness, and health that reside within the control of youth in this context.

## **Chapter II: Comprehensive Literature Review**

### Food Insecurity

The state of food insecurity in our nation is of particular concern as health professionals continue to combat the nutrition-related epidemics that plague the population. The USDA recommends that Americans eat a variety of fruits and vegetables, particularly whole each day, but for the aforementioned 17.4 million living in resource poor areas in the U.S. today, meeting those recommendations is a significant challenge<sup>7</sup>.

Food insecurity is surprisingly linked to overweight and obesity trends in the U.S. because adults concerned that they won't have adequate money for food will maximize caloric intake by purchasing the most calorically dense foods available at the lowest cost<sup>8</sup>. And when fast-food restaurants are in closer proximity and more commonly found than grocery stores, people living in that neighborhood are more likely to choose the unhealthy option<sup>9</sup>. These patterns become behaviors that are harder to change because a lack of access to diverse and nutritious foods begins to have long-term influences on food preferences and acceptability.

Concerns for the health state of our nation remain deep due to continuing high rates of overweight and obesity and rates of associated chronic disease, like diabetes. Of particular concern is the trend seen in youth, in particular minority youth populations. From 1999 to 2012, 35.1 percent of African American children ages 2 to 19 were overweight, compared with 28.5 percent of White children; and 20.2 percent were obese compared with 14.3 percent of White

<sup>&</sup>lt;sup>7</sup> U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2015 – 2020 Dietary Guidelines for Americans. 8<sup>th</sup> Edition. December 2015. Available athttp://health.gov/dietaryguidelines/2015/guidelines/

<sup>&</sup>lt;sup>8</sup> H.K. Seligman, D. Schillinger Hunger and socioeconomic disparities in chronic disease. *New England Journal of Medicine.*, 363 (1) (2010), pp. 6–9 (Jul)

<sup>&</sup>lt;sup>9</sup> Boone-Heinonen, J., Gordon-Larsen, P., Kiefe, C. I., Shikany, J. M., Lewis, C. E., & Popkin, B. M. (2011). Fast food restaurants and food stores: longitudinal associations with diet in young to middle-aged adults: the CARDIA study. *Archives of internal medicine*, *171*(13), 1162-1170.

children<sup>10</sup>. Furthermore, lower-income and poverty strongly correlates to an increase in obesity, since less nutritious and calorie-dense foods are often less expensive than healthier foods<sup>11</sup>. As of 2012, more than 38 percent of African American children under the age of 18 and 42.7 percent of children under the age of 5 lived below the poverty line<sup>12</sup>. And according to a 2009 USDA report to congress, 23.5 million people in the U.S. live in low-income neighborhoods located more than 1 mile from a supermarket<sup>13</sup>. This puts African American children at higher risk for food insecurity, an issue that has resulted in severe health disparities<sup>14,15</sup>. This disproportion suggests that food insecurity in the United States is a social justice issue.

### Food Insecurity and Structuralized Racism

The roots of food access disparity in the United States can be traced back through our history of structuralized racism. In the 1940s, low-interest homeowner loans were extended to middle-class white families that allowed them to move from cities to suburbs. Many of the supermarkets and other businesses followed these white middle-class families outside of the cities. Meanwhile, African American families were not able to access these same low-interest loans due to government sanctioned redlining, restrictive housing covenants, and discrimination. This left many of these families in the cities from where businesses had already fled<sup>16</sup>. Compounding the difficulties of locating supermarkets in the city are problems of commercial

<sup>&</sup>lt;sup>10</sup> Skinner AC, Skelton J, Prevalence and Trends in Obesity and Severe Obesity Among Children in the United States, 1999-2012. *JAMA Pediatrics*, doi:10.1001/jamapediatrics.2014.21, 2014.

<sup>&</sup>lt;sup>11</sup> Trust for America's Health. *F as in Fat: How Obesity Threatens America's Health*. Washington, D.C.: Trust for America's Health, 2013.

<sup>&</sup>lt;sup>12</sup> U.S. Census Bureau Current Population Survey (CPS).

<sup>&</sup>lt;sup>13</sup> U.S Department of Agriculture, Access to Affordable and Nutritious Food: Measuring and Understanding Food Deserts and Their Consequences: Report to Congress at iii [2009].

<sup>&</sup>lt;sup>14</sup> Ford, M. C., Gordon, N. P., Howell, A., Green, C. E., Greenspan, L. C., Chandra, M., ... & Lo, J. C. (2016). Obesity Severity, Dietary Behaviors, and Lifestyle Risks Vary by Race/Ethnicity and Age in a Northern California Cohort of Children with Obesity. *Journal of obesity*, 2016.

<sup>&</sup>lt;sup>15</sup> Robbins, J. M., Mallya, G., Polansky, M., & Schwarz, D. F. (2015). Prevalence, disparities, and trends in obesity and severe obesity among students in the Philadelphia, Pennsylvania, school district, 2006–2010. *The Childhood Obesity Epidemic: Why Are Our Children Obese—And What Can We Do About It?*, 29.

<sup>&</sup>lt;sup>16</sup> Douglas S. Massey, Origins of Economic Disparities: The Historical Role of Housing Segregation in Segregation: The Rising Cost for Americans 68 (James H. Carr & Nandinee K.Kutty, eds., 2008)

redlining and the refusal of insurance companies to provide insurance coverage to businesses located in predominantly black or minority neighborhoods<sup>17</sup>. This historically left many African American dominant communities without access to the same food systems allotted to white neighborhoods. Issues of food insecurity have spilled over into today's food environment where minority populations still remain the majority in food scarce communities. African Americans are half as likely to have access to chain supermarkets and with Hispanics being a third less likely to have access to chain supermarkets<sup>18</sup>.

### How Food Insecurity Affects Child Health and Development

Children suffer greatly from food insecurity in the United States, though the effects may look very different than what is expected in malnourished children. Obesity and overweight in the United States is commonly correlated with food insecurity and malnutrition, despite a higher body mass index<sup>19</sup>. This can be attributed to a higher consumption of calorie and fat-dense but less nutritious foods, like sugar sweetened beverages and fast foods<sup>20</sup>. Overall, less expensive filling foods are more energy dense but nutrient sparse, while nutrient-dense energy-sparse foods are more expensive<sup>21</sup>. Children's health is of great concern in food insecure communities. Studies have found that food insecurity has been associated with health problems for children that may hinder their ability to function normally and participate fully in school and other activities<sup>22</sup>.

<sup>&</sup>lt;sup>17</sup> American Civil Liberties Union, Unshared Bounty: How Structural Racism Contributes to the Creation and Persistence of Food Deserts. June 2012. (accessed June 2016) <sup>18</sup> American Civil Liberties Union, <u>Unshared Bounty: How Structural Racism Contributes to the Creation and</u>

Persistence of Food Deserts. June 2012. (accessed June 2016)

<sup>&</sup>lt;sup>19</sup> Food Research and Action Center. Understanding the Connections: Food Insecurity and Obesity. 2015. http://frac.org/pdf/frac brief understanding the connections.pdf

<sup>&</sup>lt;sup>20</sup> Bhattacharya, J., Currie, J., & Haider, S. (2004). Poverty, food insecurity, and nutritional outcomes in children and adults. Journal of health economics, 23(4), 839-862.

<sup>&</sup>lt;sup>21</sup> Drewnowski, A., & Specter, S. E. (2004). Poverty and obesity: the role of energy density and energy costs. *The American journal of clinical nutrition*, 79(1), 6-16. <sup>22</sup> Feedingamerica.org "Child Development". Accessed July 2016

In addition, Child development is be greatly impacted by food insecurity through both nutritional pathways and through its contribution to overall family stress<sup>23</sup>. Early life exposure to food insecurity has also been linked with delayed development, poorer attachment, and learning difficulties<sup>24</sup>. There is also evidence that food insecure children may experience increases in an array of behavior problems, including: fighting, hyperactivity, aggression, mood swings and bullying<sup>25,26</sup>. And emerging research suggests that food insecure children have decreased reading and math skills in kindergarten, relative to their counterparts in food-secure homes<sup>27</sup>.

Developing programs that ensure that nutrition for children is adequate for them to grow and develop and remain healthy throughout the life-course must be a public health priority, but these programs need to approach health and wellness from multiple angles.

### Strategies that Address Inadequate Nutrition in Children

There have been increased efforts in the last decade to re-shape the diets of youth in the United States, as diet-related health risks continue to rise in this vulnerable population. The World Cancer Research Fund International has defined effort areas using the NOURISHMENT framework (figure 2). This framework identifies three primary domains of work aimed at obesity prevention and reduction: *Food Environment, Food System*, and *Behavior Change Communication*<sup>28</sup>.

<sup>&</sup>lt;sup>23</sup> Cook, J. T., & Frank, D. A. (2008). Food security, poverty, and human development in the United States. *Annals of the New York Academy of Sciences*, *1136*(1), 193-209.

<sup>&</sup>lt;sup>24</sup> Zaslow, Bronte-Tinkew, Capps, Horowitz, Moore, and Weinstein (2008) Food Security During Infancy: Implications for Attachment and Mental Proficiency in Toddlerhood. Maternal and Child Health Journal, 13 (1), 66-80.

<sup>&</sup>lt;sup>25</sup> Huang (2010) Does food insecurity affect parental characteristics and child behavior? Testing mediation effects. *Social Science Review*, September, 381-401.

<sup>&</sup>lt;sup>26</sup> Slack and Yoo (2005) Food hardship and child behavior problems among low-income children. *Social Service Review*, 75, 511–536.

<sup>&</sup>lt;sup>27</sup> Markowitz, A. J., Ryan, R. M., & Johnson, A. D. (2014). Childcare subsidies and child care choices: The moderating role of household structure. *Children and Youth Services Review*, *36*, 230-240.

<sup>&</sup>lt;sup>28</sup> World Cancer Research Fund International. 2016. <u>http://www.wcrf.org/int/policy/nourishing-framework</u>. Accessed July 2016

Nutrition education is one strategy often seen employed with youth, when looking in the *behavior change communication* domain<sup>(29,30)</sup>. Nutrition education originated as an element of home economics, which used an ecological framework to improving life skills. But with advancements in nutritional science, curricula became more focused on disseminating translated scientific knowledge, rather than addressing a more holistic model<sup>31</sup>. Obesity has doubled in children and quadrupled in adolescents in the past 30 years, leaving more than one third of children in the US either overweight or obese<sup>32</sup>. With trends towards an accelerating obesity epidemic, especially among youth, and seeing little improvement in dietary behavior change, this approach has been ousted and nutritional education has returned to a more integrated model that incorporates the multiple skills required for positive dietary habits. School gardening and cooking education have been commonly integrated into nutrition education, as research has shown the positive changes these programs can have on eating habits.<sup>33</sup>

### Garden-based Nutrition Education

Garden-based experiential education programs have become increasingly popular over the past several decades<sup>34</sup>. Multiple studies of farm-to-school programs have linked garden-based learning to increased selection and consumption of fruits and vegetables<sup>35,36</sup>. A study conducted

 <sup>&</sup>lt;sup>29</sup> Fordyce-Voorham, S. (2011). Identification of essential food skills for skill-based healthful eating programs in secondary schools. *Journal of nutrition education and behavior*, *43*(2), 116-122.
 <sup>30</sup> Parmer, S. M., Salisbury-Glennon, J., Shannon, D., & Struempler, B. (2009). School gardens: an experiential

<sup>&</sup>lt;sup>30</sup> Parmer, S. M., Salisbury-Glennon, J., Shannon, D., & Struempler, B. (2009). School gardens: an experiential learning approach for a nutrition education program to increase fruit and vegetable knowledge, preference, and consumption among second-grade students. *Journal of nutrition education and behavior*, *41*(3), 212-217.

<sup>&</sup>lt;sup>31</sup> Travers, K. D. (1997). Nutrition education for social change: critical perspective. *Journal of Nutrition Education*, 29(2), 57-62.

<sup>&</sup>lt;sup>32</sup>Ogden CL, Carroll MD, Kit BK, Flegal KM. Prevalence of childhood and adult obesity in the United States, 2011-2012. Journal of the American Medical Association 2014;311(8):806-814

<sup>&</sup>lt;sup>33</sup> Brown BJ, Hermann JR: Cooking classes increase fruit and vegetable intake and food safety behaviors in youth and adults. J Nutr Edux Behav. 2005, 37 (2): 104-105. 10.1016/S1499-4046(06)60027-4.

<sup>&</sup>lt;sup>34</sup> Subramaniam, A. (2002). Garden-based learning in basic education: A historical review. Monograph, 1–11. Retrieved June 3, 2006.

<sup>&</sup>lt;sup>35</sup> McAleese, J. D., & Rankin, L. L. (2007). Garden-based nutrition education affects fruit and vegetable consumption in sixth-grade adolescents. *Journal of the American Dietetic Association*, *107*(4), 662-665.

in 2008 at Auburn University in Alabama, tested the hypothesis that elementary learners involved in garden-based nutrition education would have more positive change in fruit and vegetable knowledge, preference, and consumption. The study looked at three groups of learners: children receiving nutrition education (NE), children receiving nutrition education + gardening (NE+G), and the control group (CG). The NE+G were more likely to choose vegetables in the school lunchroom than the NE only group and in the control. Knowledge improved in both treatment groups but increased consumption was only found in the gardening group. Preference towards fruits and vegetables was more significant in the NE+G, though it increased in both treatment groups<sup>37</sup>. While this experiment showed more positive results for learners involved in gardening activities, a limitation of the study was the predominantly white population.

Another study conducted in Los Angeles, CA, may more accurately represent results for working with minority youth. The program looped into an existing after-school program at four eligible schools which requires >75% Hispanic/Latino and >75% receiving free and reduced lunch. The program measured self-efficacy, willingness to try, knowledge, attitudes, and motivation, in addition to the body mass index of youth. While the program showed improvements in nutrition and gardening knowledge, there was no significant increase in motivation to eat, cook, or garden fruits and vegetables, and the intervention did not result in significant improvements in self-efficacy to eat, garden, or cook fruits and vegetables<sup>38</sup>.

Though researchers have shown that involvement in both food production activities and

<sup>&</sup>lt;sup>36</sup> Morris, J., Neustadter, A., & Zidenberg-Cherr, S. (2001). First-grade gardeners more likely to taste vegetables. *California Agriculture*, *55*(1), 43-46.

<sup>&</sup>lt;sup>37</sup> Parmer, S. M., Salisbury-Glennon, J., Shannon, D., & Struempler, B. (2009). School gardens: an experiential learning approach for a nutrition education program to increase fruit and vegetable knowledge, preference, and consumption among second-grade students. *Journal of nutrition education and behavior*, *41*(3), 212-217.

<sup>&</sup>lt;sup>38</sup> Davis, J. N., Martinez, L. C., Spruijt-Metz, D., & Gatto, N. M. (2016). LA Sprouts: A 12-Week Gardening, Nutrition, and Cooking Randomized Control Trial Improves Determinants of Dietary Behaviors. *Journal of nutrition education and behavior*, *48*(1), 2-11.

food preparation can have a positive affect on knowledge and attitudes as well as on consumption of fruits and vegetables, there is limited research on the effectiveness of these programs with African American youth, in particular those living food insecure settings. Only one published article was found that looked at an African-American focused garden-based program in the southern U.S., and this program was conducted in a rural setting<sup>39</sup>. The use of critical or emancipatory pedagogy for nutrition and food education has not been looked at for African American youth in the U.S.; however, other education programs rooted in this theoretical approach have proven effective for black youth, for not only academic achievement, but also in improved self-esteem and self-concept for youth<sup>40</sup>.

Garden-based education provides a hands-on learning opportunity for youth learning about food and nutrition but programs must consider a more broad-based focus that addresses the many facets of the food system, as well one that addresses the social sources of inadequate nutrition and food insecurity that affect minority youth.

## Food Literacy Education

Food literacy education has the ability to provide a more comprehensive strategy for improving dietary behaviors. As mentioned above, there is no common definition found in the literature for "food literacy", but there is consensus that the emergence of the term "literacy" increasingly describes the knowledge and skills required to navigate a particular societal system,

<sup>&</sup>lt;sup>39</sup> De Marco, M. M., Woods Smith, T., Kearney, W., & Ammerman, A. (2016). Harvest of Hope: The Impact of a Church Garden Project on African American Youth and Adults in the Rural American South. *Journal of Hunger & Environmental Nutrition*, 1-11.

<sup>&</sup>lt;sup>40</sup> Warfield-Coppock, N. (1992). The Rites of Passage Movement: A Resurgence of African-Centered Practices for Socializing African American Youth. *The Journal of Negro Education*, *61*(4), 471-482. doi:1. Retrieved from http://www.jstor.org/stable/2295365 doi:1

for example health or finance or food<sup>41</sup>. A study completed in 2014 aimed to form a definition by looking at its components identified by professionals in the field and by narrowing those down. The study identified four primary components: PLAN/MANAGE, SELECT, PREPARE, and EAT. Each of these four components encompasses a set of competencies seen as ideal for improving ones dietary behaviors. Thus food literacy programs look at multiple aspects of the food system including, production, sales and marketing, preparation, and consumption.

### Limitations of Food Literacy

While food literacy encompasses multiple aspects of the food system and the many skills required for navigation of that food system, it places a great deal of responsibility on individual deficits in knowledge and skills without acknowledging the sociopolitical components affecting the health and wellbeing of populations. This is particularly important when working with food insecure and minority populations in the United States. There must be an element in food literacy education that deconstructs the oppressive systems in place that are creating food deserts and poor dietary habits. This is analogous to Friere's concept of critical pedagogy and his approach to teaching literacy education to peasants in Brazil by addressing first the political state that led to their illiteracy<sup>42</sup>.

### Using Critical Race Pedagogy for Food Literacy Education

According to the concept of critical pedagogy, all education is inherently political and can either teach learners to adopt a critical perspective on their society, or it can reinforce dominant norms and serve to perpetuate the exiting power structures<sup>43</sup>. As stated above, there

<sup>&</sup>lt;sup>41</sup> A-L. Frisch, L. Camerini, N. Diviani, P.J. Schulz. Defining and measuring healthy literacy. How can we profit from other literacy domains? Health Promotion International, 27 (1) (2012), pp. 117-126

<sup>&</sup>lt;sup>42</sup> Travers, K. D. (1997). Nutrition education for social change: critical perspective. *Journal of Nutrition Education*, 29(2), 57-62.

<sup>&</sup>lt;sup>43</sup> Giroux, H.A. (2003). Critical educational theory and educational practice In A. Darder, M. Baltodano, & R.D. Torres (Eds.), The critical pedagogy reader (pp. 27-55). New York: Routledge Falmer.

are limitations to food literacy programs when the sociopolitical context is not taken into consideration for the curriculum being taught. When nutrition and food literacy programs are working with food insecure populations, a social justice lens must be used for developing and implementing the curriculum. Considering the aforementioned link between structural racism and food deserts in the United States, one can consider that the African American residents in these food deserts are an oppressed population. Using a critical pedagogical approach has learners looking at the current food system and the power structures in place for that food system to function. Through this, learners have an opportunity to consider how the food system does or does not serve their community.

Critical pedagogy, sometimes referred to as emancipatory or liberation models of education, was first epitomized in Freire's, however this concept was expanded upon by social justice educators and by youth-led resistance to oppression during the Civil Rights Movement<sup>44,45</sup>. Beyond addressing the sociopolitical and historical issues oppressively affecting communities, emancipatory pedagogy with a race lens, or critical race pedagogy avows African culture as central to the healing and transformative processes of learners<sup>46</sup>. This is a crucial component for programs working with disenfranchised youth of color in an oppressed situation, e.g. food insecurity.

#### **Experiential Learning Model**

The experiential learning model believes that learners are not merely passive recipients of knowledge, but rather that they construct their own knowledge through their interactions with the

<sup>&</sup>lt;sup>44</sup> Potts, R. G. (2003). Emancipatory education versus school-based prevention in African American communities. *American Journal of Community Psychology*, *31*(1–2), 173–183.

 <sup>&</sup>lt;sup>45</sup> Murray, I.E. & Milner, H.R. Urban Rev (2015) 47: 893. doi:10.1007/s11256-015-0339-4
 <sup>46</sup> Lynn, M. (2004). Inserting the 'Race' into Critical Pedagogy: An analysis of 'race based epistemologies'. *Educational Philosophy and Theory*, *36*(2), 153-165.

environment<sup>47</sup>. Experiential learning is often described as "learning by doing," but it generally goes beyond simple participation. Experiential learning is best understood as learning through reflection on doing and requires that the learner engage in several stages in an iterative cycle. Within an idealized experiential learning cycle, learners move sequentially through four stages: 1) concrete experiences; 2) reflective observations; 3) abstract conceptualizations and 4) active experimentations<sup>48</sup>.

Critical pedagogy complements an experiential learning approach in that, it too denounces learners as passive recipients of knowledge and the "banking model" of education. Rather, critical pedagogy or emancipatory pedagogy encourages dialogue pulling from existing knowledge and activating critical thinking in learners. As Freire puts it, the "banking method" kills creativity where as a problem-posing educational approach tries to constantly discover reality<sup>49</sup>.

By linking critical pedagogy and experiential learning to teach food literacy, the curriculum provides an opportunity for critical analysis of the food system through immersion into the food environment and reflection on participation and the interactions had in that environment.

#### **Community Context**

In an effort to address health and nutrition disparities facing African American youth particularly here in Atlanta, the Urban Health Initiative (UHI) at Emory University requested the development of a garden-based food literacy and empowerment education program. Clinicians working in West Atlanta, a historically black neighborhood in Fulton County, Georgia, have

<sup>&</sup>lt;sup>47</sup> http://unesco.org/news/en/education/themes/strengthening-education-systems/quality-framework/technical-notes/influential-theories-of-learning/

<sup>&</sup>lt;sup>48</sup> Bawden, R. J. (1998) The Community Challenge: The Learning Response. New Horizons 99: 40-59

<sup>&</sup>lt;sup>49</sup> Freire, Paolo. "Pedagogy of the oppressed (revised)." New York: Continuum(1996).

recognized a need to address nutrition, health, and wellness with youth in this context. West Atlanta has played a significant role in the African American experience in the Southern United States, but the area currently faces high rates of unemployment and poverty. Roughly 35% of children in this area receive public assistance. The USDA also identifies 34 census tracts in this county as food deserts, leaving many residents food insecure<sup>50</sup>. This leaves a population facing a deficient food environment. This youth education program aims to build knowledge and skills that will help learners begin to consider how they could be involved in re-shaping aspects of the food system that aren't working for their community.

<sup>&</sup>lt;sup>50</sup> Fulton County Department of Health and Wellness. <u>http://www.fultoncountyga.gov/partnership-to-improve-community-health/7605-healthy-eating</u>. Accessed July 2016.

## **Chapter III: Curriculum Development**

In order to address the consequences of food insecurity on children living in Northwest Atlanta, the Urban Health Initiative (UHI) decided to develop an education program aimed at addressing food literacy and nutrition. UHI brought in the assistance of Grow Where You Are (GWYA), a local agriculture group that works to educate and inspire people to grow quality food that supports human, environmental, and economic health. GWYA brought expertise in facilitation and program development that shaped the design of the curriculum.

There were three phases in reaching the intended end goal of designing a comprehensive curriculum for the food literacy and youth empowerment after-school program.

- 1) Initial planning phase and curriculum design
- 2) Pilot Implementation
- 3) Curriculum Development

### Initial planning phase and curriculum design

In order to lay the foundation for the curriculum and to map out the pilot program for spring implementation, a series of planning meetings took place between Urban Health Initiative and Grow Where You Are. These four meetings were used to establish program goals and objectives for both UHI and GWYA. Once these were identified, the team brainstormed activity ideas that would help us to reach these objectives.

There were five guiding objectives of the curriculum:

- 1. Introduce learners to the foundational aspects of growing food.
- 2. Introduce learners to the basics of the food supply chain.
- 3. Provide opportunities for practicing hands on snack and simple meal preparation.

- 4. Provide opportunities for learners to employ decision-making skills, for identify their own food preferences, and for trying new healthy, whole, plant-based foods.
- 5. Provide opportunities for time spent outside engaged in physical activity in both the natural and the built environments in the community.

Activities were pulled from previously implemented, GWYA facilitated programs and from other evidence-based curricula used by farm-to-school and food-literacy programs. Activities focused on field trips to local food markets and nature preserves as well as hands-on learning in the garden. All activities centered on the interconnectedness of all aspects of life to agriculture. A detailed outline was created as a guiding template for the pilot program.

## **Pilot Implementation**

Once the detailed outline was complete, a four-week, eight-session pilot was run with learners from the Rolling Bend community in Northwest Atlanta. Sessions were held in the Northwest Youth Power garden site, overseen by UHI, with intermittent field trips throughout Atlanta.

Multiple partnering groups were brought into the project to offer their expertise in a variety of fields. Below is a comprehensive list of program partners for the pilot.

Grow Where You Are, LLC (GWYA): GWYA developed and implemented the curriculum for this program as well as coordinated partnerships with important community stakeholders for program field trips. GWYA staff acted as the program facilitators throughout all four weeks of the program and offered critical input into the final facilitator guide.

- Emory University Urban Health Initiative (UHI): UHI provided monitoring and evaluation support through two Emory University public health graduate students, under the advisement of Emory University faculty. UHI provided grant money support to the program and coordinated partnerships with North West Youth Power and the Rolling Bends Community.
- North West Youth Power and Rolling Bends Community: NWYP provided support by offering space for the education garden, use of their facilities, and transportation throughout the program. The Rolling Bend Community Center also supported the program with crucial assistance from the center's coordinator and driver.
- Maitu Foods, LLC: Maitu Foods provided all of the organic, plant-based snacks for the program with special consideration to programming so that participants could learn from the foods that they were eating during each session.
- ➤ Fire Hawk Yoga: A certified yoga instructor provided Kemetic<sup>TM</sup> yoga instruction throughout all four weeks of the program. Kemetic yoga is the ancient Egyptian system of Yoga enlightenment based upon the practices of physical movement combined with controlled deep breathing and meditation.<sup>51</sup>
- Afrikan Djeli Cultural Institute: The Afrikan Djeli Cultural Institute, a West End based group that organizes a variety of Afrikan Dance and Drum classes and workshops, provided drum circle facilitation to program participants.

Evaluation of the pilot was conducted during the four weeks using four different methods of data collection. Session worksheets were developed to track information how each session ran and to capture details of the program. Additional observational data was recorded by way of

<sup>&</sup>lt;sup>51</sup> http://kemeticyoga.com/what-is-kemetic-yoga/

filming facilitated discussion with program participants and through activity write-ups recorded on the session worksheets. An ball of questions activity was used to collect baseline information and knowledge and attitudes of program participants and to facilitate discussion about food and nutrition. Four in-depth interviews were also conducted with program participants at the end of the program to gather information about their attitudes to and perceptions of program activities and experiences.

## **Curriculum Development**

A comprehensive facilitator guide was developed using the findings and lessons learned from the pilot program. The majority of activities included in the guide were those piloted during the spring and follow the facilitation methods observed during the pilot program. Other activities were added to meet needs identified during the pilot.

## **Chapter III. Results from Pilot:**

### **General Description of Participants**

The learners that participated in the after-school program pilot came from the a lowincome community in Fulton County, Georgia. All learners were residents of the same section-8 housing project and attended the same public school. The age range of learners was 5-13 years old. All of the learners were children of color, coming from a predominantly African American community. These children are some of the 38% of African American children living in communities in the U.S. with high concentrations of poverty, compared with the 10% of their white peers<sup>52</sup>. This community falls into one of the 34 census tracts that the USDA has identified as food deserts in Fulton County<sup>53</sup>. Approximately 20% of households living in this census tract are without vehicles and located more than ½ mile away from a supermarket<sup>54</sup>. The only grocery store within ten miles of the apartment complex where program participants reside is a Buy Low Supermarket, which is located over a mile away<sup>55</sup>. The only other grocery store in the area closed down in February 2016, exacerbating the food access situation for residents<sup>56</sup>.

The health of the community was not formally assessed prior to the pilot program, however, data from the Fulton County health department indicates significant health disparities between white and black residents. Rates of diabetes mortality for black residents in the county

<sup>&</sup>lt;sup>52</sup> "Changing the Odds: the race for results in Atlanta". 2015. Annie E Casey Foundation. Accessed June 2016. http://www.aecf.org/m/resourcedoc/aecf-ChangingTheOddsWeb-2015.pdf

<sup>&</sup>lt;sup>53</sup> Fulton County Department of Health and Wellness. http://www.fultoncountyga.gov/partnership-to-improvecommunity-health/7605-healthy-eating. Accessed July 2016.

<sup>&</sup>lt;sup>54</sup> USDA food access research atlas. Last update June 14, 2016. http://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas.aspx . Accessed July 2016.

<sup>&</sup>lt;sup>55</sup> Community Commons. US Department of Agriculture, Food and Nutrition Service, <u>USDA - SNAP Retailer</u> <u>Locator</u>: May 2015. Additional data analysis by <u>CARES</u>.

<sup>&</sup>lt;sup>56</sup> Reardon, S. "Giant Food grocery store's closing adds to food desert issue along Bankhead corridor". Creative Loafing Feb. 16, 2016. Accessed online: June 2016. http://clatl.com/freshloaf/archives/2016/02/16/giant-food-grocery-stores-closure-adds-to-food-desert-issues-along-bankhead-corridor

are greater than three times the rate of diabetes mortality in white residents and the rate of obesity in black adults is twice that of the rate in white residents<sup>57</sup>.

Multiple learners cited that they suffered from asthma during the program and indicated feeling "unwell" from respiratory distress. Some learners also cited skipping meals during the day, though it was unclear if this was due to lack of food access or choosing to not eat school meals provided to them.

During the development phase leading up to the pilot, we anticipated working with ages 9-12; however, the pilot program included younger participants than expected. The age range was wide, from five years old to thirteen. The curriculum and facilitators from GWYA were flexible and able to accommodate all age ranges. To accommodate for this wider age range hands-on components of the curriculum were augmented to engage the younger learners. All themes from the original curriculum were introduced, though discussions were less in-depth. Younger learners were particularly engaged in the hands-on and sensory level activities of program, while older learners were able to apply critical thinking to program activities and express ideas during discussions.

### Summary of Activities

We had five main learning objectives for the New Power Generation After-School:

- 1. Introduce learners to the foundational aspects of growing food.
- 2. Introduce learners to the basics of the food supply chain.
- 3. Provide opportunities for practicing hands on snack and simple meal preparation.
- 4. Provide opportunities for learners to employ decision-making skills, for identify their own food preferences, and for trying new healthy, whole, plant-based foods.

<sup>&</sup>lt;sup>57</sup> https://bchi.bigcitieshealth.org/place/Atlanta%20(Fulton%20County),%20GA#categories-section

5. Provide opportunities for time spent outside engaged in physical activity in both the natural and the built environments in the community

In order to achieve these objectives we selected the following activities for the afterschool program. A summary of the activities and evidence of engagement can be found in Table 1. To assess program efficacy, we aimed to identify examples of learners reaching the four different stages of experiential learning: 1) concrete experiences; 2) reflective observations; 3) abstract conceptualizations and 4) active experimentations.

Activity	Duration:	# of	Description	Evidence of engagement
name:		sessions		
Yoga and Breathing Exercises	20-40 mins	7	Learners were led through a series of Kemetic yoga poses and breathing exercises.	<i>"we do yoga because it makes us healthy" –</i> program participant, age 9
Healthy Snacks and Tasting Activities	20-40 mins	8	8 different snacks were served to 33 learners. All snacks were prepared from fresh plant-based ingredients and often included local produce.	"These taste like pizza rolls" ; "I liked the lentil pocket, cause it had bbq sauce and mayonnaise.";
Garden Work	20-45 min		Learners worked in two garden sites. Through hands on experiences and instruction they	"today we mulched pathways to know where to walk"; "pulled garlic/onions and talked about how they are different, one like a straw and one like a ribbon or something."; "We saw banana trees and were told they have
			mulch, transplant,	like a straw so they can arink water from the ground"
			harvest, and clean produce. They were	"We saw potatoes, but like the tops of the potatoes"
			also taught tool safety.	"keeps grass from growing where you need to walk."; "the woodchips are called mulch, they, umm, keep rain in the soil and keep it healthy and stuff, from the sun." – learners defining mulch at the end of the program
				"What I learned was, ummm mint. I didn't know mint could grow" – learner answering one new thing he learned through the program
East Atlanta Farmers' Market field	1 hr	1	8 learners were taken to the East Atlanta Farmers Market and	<i>"Can I plant these once I'm finished"</i> - participant after trying cherries from a cherry bush in education garden;
trip		given a tour of the education garden, lesson on fruit trees by and opportunity to explore.	"how'd you make peppers sweet like that" – learner reacting to a pepper jelly sample provided by market vendor	
			"look it's mint, just like at the garden!" – learner seeing mint in the market education garden	
				"you could build Lego lands and then sell them for money"; "you could make toy cars. And sweet bread!"; "my idea would be baking the ginger bread, or making strawberry, vanilla and strawberry ice creamoooh and you could make money by being a trash keeper." – learners identifying vendor ideas if they held a market in their community

 Table 1. New Power Generation Pilot Program: Session Overview and Evidence of Engagement

Whole	1 hr	1	11 learners were	"We saw that (Swiss chard) at the farmers'
Foods			given a store tour and	market!" – learner identifying rainbow chard in
Market field			had an opportunity to	the produce section
trip			try samples of freshly	
			prepared juices, hot	"to keep them contained and to make them look
			bar food and gelato.	<i>pretty".</i> – learner responding to why oranges were
			Learners were	stacked in a pyramid in the produce section
			instructed to observe	
			packaging and	
			displays throughout	
			the store, as well as	
			store design.	
Whole	45 min	1	Learners discussed	<i>"it is probably in the front because they want to</i>
Foods store			their experience in	sell it. Kind of like at a car dealership, you put the
mapping			Whole Foods and the	car you want to sell first in the front of the lot." –
and			tricky techniques of	on why produce is located at the front of the
discussion			food marketing	grocery store;
Snack	45 min	1	Learners worked with	"I feel it here! And my eyes are popping out." –
Preparation			a local chef to build	learner upon trying straight lemon juice
			healthy snacks and to	
			discuss the benefits	
			and eating "good	
			food."	
Brown Rice	20 mins	2	Learners watched a	"she taught me" – new learner singing BRB song
Broccoli			music video created	without having attended the earlier program
(BRB) Music			by students about	
Video and			healthy eating and	"we are gonna serve brown rice and broccoli next
Discussion			nutrition and were led	[session] I asked my mom to make brown rice
			through a discussion	and broccoli." –learner exhibiting new interest in
			about how and why	brown rice and broccoli
			the song and video	
			were created.	

## Yoga and Breathing Exercises:

A certified Kemetic yoga instructor led seven yoga sessions between 20-40 minutes throughout the four weeks. This yoga style was selected with intention to introduce a practice rooted in African tradition. Self-awareness and mindfulness were primary goals of this activity. All ages were able to engage in this kinesthetic learning. Learners that were interviewed at the end of the program all cited yoga poses as something new that they learned and identified that yoga practice was linked to health and well-being. Fewer than half of the learners cited knowing yoga at the start of the program and none could describe what it was or its function.

At the end of the program, when posed with the question: "What is Yoga?" One learner responded, *"Yoga is when you stretch and relax and it comes from different countries."* Another learner was asked, "Why do we do yoga?" *To which he responded, "to make you grow and to get stronger.*" These examples represent change in knowledge from baseline to the end of the program

In addition to the uptake of information, learners were able to demonstrate their acquired skill during one of the final yoga sessions. During this session, learners were told that they would be deciding what poses to do that day for an opportunity for them to exhibit their new skills. Each learner selected a pose and the group followed their instructions with assistance from the facilitators. Eleven unique poses were suggested and demonstrated by nine learners during the session. This provided another opportunity for learners to exhibit an increase in knowledge and skills from baseline to endline.

#### Healthy Snacks and Tasting Activities:

Emphasis was placed on tasting foods throughout the pilot to encourage acceptability of unfamiliar or disliked plant-based foods in program learners. We chose to include plant-based foods during each session to encourage acceptability of fruits, vegetables, and legumes since recent research has shown that dietary diversity and acceptability can increase with exposure to trying new foods<sup>58</sup>. Eight different freshly prepared, plant-based snacks were provided to a total of 33 learners throughout the program. Snacks were prepared to resemble popular and familiar foods, since studies have shown that children "eat what they know"<sup>59</sup>. Snacks were served during each session in a group setting to promote acceptability through modeling behavior by adult facilitators and by their peers. This kind of positive active social modeling has been shown to encourage the eating of typically disliked or unfamiliar foods in children. Additionally, we avoided excessive coercion or pressure to eat, or conversely restrict, as this can distract a child from learning to regulate his or her own eating based on physiological cues associated with the food eaten<sup>60</sup>.

During food tasting exercises, learners were encouraged to discuss their experiences and to consider what they *did* or *did not* like about a particular food. The aim of checking in was to connect learners to their food preferences and to foster decision-making skills and an attitude of open-mindedness.

During a lentil roll snack, a couple of learners rejected the snack, claiming them too foreign or just gross, but a few of the learners were really enjoying the snack. Finally one learner said, *"these taste like pizza rolls!"* Upon hearing this statement, the learners that had reject the food initially, decided that they would retry the snack. This was a common theme seen throughout the program. There was seemingly a sort of "contagious bravery" for trying new

<sup>&</sup>lt;sup>58</sup> Gibbs, L., Staiger, P. K., Johnson, B., Block, K., Macfarlane, S., Gold, L., ... & Ukoumunne, O. (2013). Expanding children's food experiences: the impact of a school-based kitchen garden program. *Journal of nutrition education and behavior*, *45*(2), 137-146.

<sup>&</sup>lt;sup>59</sup> Wardle, J., Sanderson, S., Gibson, E.L. & Rapoport, L. (2001) Factor-analytic structure of food preferences in four-yearold children in the UK. *Appetite* **37**, 217–223.

<sup>&</sup>lt;sup>60</sup> Gibson, E. L., Kreichauf, S., Wildgruber, A., Vögele, C., Summerbell, C. D., Nixon, C., ... & Manios, Y. (2012). A narrative review of psychological and educational strategies applied to young children's eating behaviours aimed at reducing obesity risk. *Obesity reviews*, *13*(s1), 85-95.

foods. Learners not only modeled behaviors of the adults present, but also the behaviors of their peers.

During the pilot, an average of 80 percent of the learners tried the healthful snack offered during each session and about half of the learners finished their snack completely during each session. For the snacks served during the latter part of the program, *tacos, lentil rolls, vegan hot dogs, and focaccia pizza*, learners had seconds and thirds. Learners were most accepting of foods that they initially recognized, however certain foods were well accepted once tried, even if at first unfamiliar. All of the snacks prepared were vegan made from fresh ingredients and they often included produce from the GWYA garden sites. A complete list of snacks provided can be found in *Table 2*.

Sessions	Healthful Snack Served	% of learners willing to try	% ate more than ½	Snack Reception
Session 1: April 27, 2016	BBQ Lentil Pocket	75%	42%	"I liked the lentil pockets, ummm the bbq sauce and mayonnaise made it good" – participant, age 9 (during discussion about favorite program foods)
Session 2: April 28, 2016	Quinoa and seed "fried rice" grain bowl	64%	40%	"I never tried anything like that before. The yellow stuff (quinoa) by itself is gross but when it was all mixed together, it tasted real good" –participant, age 10 "I don't know what this yellow stuff is (squash), but it's nasty!" – participant, age 11 (during
Session 3: May 4, 2016	Spaghetti and Meatless-balls	100%	30%	session 2) "I didn't really like the spaghetti, well, it was alright, but I didn't like it much." – participant, age 9 (during end of program interview) "I ate a lot of the spaghettiI liked the meatballsthey weren't made from meat though, maybe beef? – participant, age 10 (during end of program interview)
				"Why does this spaghetti sauce have green stuff in it? That's nasty" – participant, age 9 (during session 3)
Session 4: May 5, 2016	Vegan Tacos with garden fresh veggies	100%	100%	Two learners had seconds; <i>"I ate 18 cherry tomatoes"</i> – participant, age 9 (during session 4)
Session 5: May 11, 2016	Veggie burgers	82%	55%	<i>"I never had a veggie burger but I liked it. I thought I'd like it though" –</i> participant, age 9
Session 6: May 12, 2016	Vegan lentil and kale "egg rolls"	100%	80%	"I looked at 'em like, ummm this is not gonna taste good, so I said, I'm gonna, ok let me just try it to see what it gonna tastes like, so I tasted it and said, Ok that's good and I started eating it " – participant, age 9 (end of program interview)
				"these taste like pizza rolls!"- participant, age 8 "It's got like, it's got like mint, or maybe greens in it, like spinach or something."- participant, age 8 (during snack discussion - session 6)
				day, what are they called? Lentils!- participant, age 9 (during snack discussion - session 6)
Session 7: May 18, 2016	Veggie Hot Dogs	100%	100%	Facilitator: What was the snack you most preferred? Participant: "Umm, that would be the hotdog" – (end of program interview)

 Table 2. New Power Generation Pilot Program: Healthy Snack Overview and Reception

Session 8:	Focaccia bread	100%	90%	This pizza is good. What is this crust or bread?
May 19,	vegan pizza			How'd you make it? Cause it's good! -learner,
2016				age 7 (during session 8)

## East Atlanta Farmers' Market Tour:

As part of the program, we aimed to introduce learners to food sales environments and to expose learners to small community food businesses. Learners were brought to the farmers market to show learners an element of the local food supply chain. The market was introduced as a space where community members came together and decided to build something that would benefit everyone. Eight learners arrived at the farmers market and were given a tour by the market coordinator and a local arborist and environmental educator. Learners were encouraged to try cherries and chocolate mint, found growing in the education garden. The learners ate an abundance of the cherries picked from the bush and they were given small bags to hold on to the seeds. Upon hearing that they could potentially grow their own cherry bush, the learners filled their plastic bag full! During his end of program interview, one learner cited *"the cherries from the bush at the farmers market"* as his favorite new thing that he tried during the program. He said what he liked about them was, *"that they was juicy and sweet."* 

Learners saw some of the same vegetables from the gardens at the farmers market and were able to identify these items. One learner pointed to a vendors stand and said, *"look, it's mint, just like at the garden!"* 

In addition to whole produce, learners had an opportunity to talk to some of the vendors about the process of food transformation. The items at the market were often made with plants but were transformed into jams, soaps, etc... A couple of learners tried different jams that were offered as samples and asked the vendor, *"You made this? How? How'd you know how to do that?"* The vendor responded by explaining the process she used to transform fruits and vegetables into, jams. One of the learners tried a pepper jam and said, *"how'd you make peppers sweet like that?"* The learner here acknowledged understanding that the community member had created something from the produce, a new product that was transformed into something different than the harvested peppers.

The tour also included an opportunity for learners to use \$5 market tokens to purchase items of their choosing. One learner pointed out that if he only spent \$3, would he get tokens back or cash? Upon discovering that learners would receive cash, many of them took the opportunity to select an item and reap the rewards of cash change. That same learner recalled this during his end of program interview stating that his favorite thing about the farmers market was *" that you can get money, they gave us a little coin and we could buy stuff to get the money, the change."* 

Following the field trip, learners were asked to recall some of the things that they saw at the farmers market. One 10-year old learner stated:

"We saw strawberries, we saw rosemary, we saw blueberries, we saw vegetables, we saw bread, we saw, ummm, muffins, we saw drinks, lemonade drinks, and we saw guitars and violins"

The learner was able to list a significant number of observations from the experience, providing an example that he was engaged in the environment of the farmers' market.

Learners were also asked to reflect on what they saw and to consider what skill they might use to create a product to sell at a market in their own community. One facilitator prompted by asking *"raise your hand if you feel like you could do something, like find something that you really like to make and set up and sell it?"* Five out of the eight learners on the bus raised their hands. She continued by asking, *"who has some ideas of a business that you could start even once you get into high school?"* One learner pulled an instruction sheet for making
Legos and said "you could build Lego lands and then sell them for money." Another learner responded, "you could make toy cars. And sweet bread!" And a third learner said:

"my idea would be baking the ginger bread, or making strawberry, vanilla and strawberry ice cream...oooh and vou could make money by being a trash keeper."

The aim of this exercise was to have learners consider ways that they could participate in the economic system of their own community.

#### Whole Foods Store Tour:

Eleven learners were guided through the Whole Foods Market on Ponce de Leon Avenue. The objective of the store tour was to have learners critically look at how stores are designed and what foods are being sold and how they are being sold. The produce manager gave the tour and WFM staff offered free samples of juices, hot bar foods and gelato. Learners were instructed to observe packaging and displays throughout the store, as well as store design. A necessary "peptalk" was given to learners before the tour, urging best behavior and respect. We acknowledged the overwhelming stimulations that learners would experience once inside e.g. smells, sounds, and visuals-- like color. We encouraged them to take these in but to be self-aware and to remain focused on whoever was giving instruction. The aim of this activity was to have learners make critical observations about store design and package design. During the store tour, one learner pointed out that the name "Way Better" was probably to try to convince people it was better than Lays "even though it's not cause it is healthy and probably nasty". When asked how shoppers decide to choose Lays he stated. "Because they are Lays, everyone knows they are good"! The conversation continued about how one trusts a brand. The learner acknowledged that his perception of a brand is based on what his peers and family consume and based on what he has already tried and knows that he likes. The group then elaborated on this conversation with a brief discussion about some of the colors and words seen on packaging and the location of foods in the store. The aim of the discussion was to work with learners to identify the marketing strategies used by food companies to influence our choices as consumers.

One learner said that she saw a "pyramid of oranges." The facilitator probed and asked her why they displayed them that way? She responded by saying, "to keep them contained and to make them look pretty". Another learner pointed out that the cereal boxes had animals and lots of colors. When asked why he thought they were like that, he responded, "little kids probably think the animals are cute." These are just two examples of learners grasping the concept of this exercise.

An additional complementary education session was held during the next session for more reflection on learner experiences. They mapped out the market and discussed some of the way products were broken up into sections. On discussing the produce, learners pointed out that it was placed close to the entrance of the store. When the facilitator probed as to why this may be the case, one learner responded that *"we know fruits and vegetables need air and sunlight!"* Another learner said, *"[the produce] might rot if it is in the center of the store."* A third learner said, *"it is probably in the front because they want to sell it. Kind of like at a car dealership, you put the car you want to sell first in the front of the lot."* In each of the discussion-based activities, learners had an opportunity to reflect on their experiences in the grocery store and to demonstrate the idea that food is marketed to influence choice.

#### Garden Work

Learners worked in two different gardens throughout the program. Five of the eight sessions included gardening activities. The aim of the work was to familiarize learners with the origins of food and to provide an opportunity for collective efforts. Additional lessons, such as plant

biology, were included into garden work time for maximum sensory learning<sup>61</sup>. One particular session involved a field trip the GWYA urban farm where learners had the opportunity to be involved in all processes of food from ground to mouth. Learners transplanted, watered, harvested, cleaned, and cooked in the garden with instruction from facilitators. They harvest onions during the session and were then instructed to clean them and prepare them for grilling. The learners were then instructed in making onion wraps with homemade roti bread. About half of the learners tried the grilled onion wrapped in homemade roti bread. In a later session, one learner, when asked what vegetable he has never tried but would like to try, stated, "onions." When asked about whether or not he had tried the onions grilled in the garden during an earlier session, he said, "*I didn't eat it that day but would like to try them now*".

The learners also learned how to harvest and clean garlic and they were shown the differences between garlic and onions by looking at the ribbon-like leaf of the garlic, versus the straw-like leaf of the onion. One learner when asked about new things she learned about plants in the garden, stated: *"we pulled garlic and onions and talked about how they are different...one is like a straw and one like a ribbon or something."* The learner here exhibits reflective observation from her experience in the garden.

Learners were also introduced to tool safety and use. When surveyed in the beginning of the program, about half of the learners during the session had used a shovel before, but none had used a rake, pitchfork, or wheelbarrow. By the end of the program, learners were able to use all of these tools. In his end of program interview, one learner said, *"I learned how to farm. How to shovel the dirt and how to use a fork to move woodchips into the green thing, the uh, the wheelbarrow."* 

<sup>&</sup>lt;sup>61</sup> Berezowitz, C. K., Bontrager Yoder, A.B., & Schoeller, D.A. (2015). School gardens enhance performance and dietary outcomes in children. Journal of School Health, 85(8), 508-518.

Learners mulched with woodchips during all of the session with gardening. They learned how mulch protects the soil, traps moisture, and prevents weeds from growing. Following the program, three learners were asked to recall the function of the woodchips in the walkways of the garden and one learner responded, *"keeps grass from growing where you need to walk."* Another learner identified that *"the woodchips are called mulch, they, umm, keep rain in the soil and keep it healthy and stuff, from the sun."* 

#### Free-Selection Fruit Tasting

Learners were told that there was a selection of fresh fruits that we would be passing around the circle. The objective of this activity was to provide learners an opportunity to make independent decisions about food selection. We told learners that they could select whatever fruits they wanted and did not need to choose the ones that they did not want to eat. We asked learners to think about why they liked the fruits that they chose and to consider the tastes and textures of the fruits while they were eating them. Some learners shared which fruits they preferred and facilitators modeled behavior by trying different fruits and encouraging learners to try new fruits if they wanted. This activity was rooted in evidence that food neophobia is inversely related to exposure to food variety in childhood and teenage years.<sup>62</sup>

#### Plastic Bag Crochet

Beyond focus on food and agriculture, the program aimed to have learners thinking about the world in which they live and the systems in place around them. One highlighted component of these systems is waste management and recycling of used materials. Learners were asked to

<sup>&</sup>lt;sup>62</sup> Reverdy, C., Chesnel, F., Schlich, P., Köster, E. P., & Lange, C. (2008). Effect of sensory education on willingness to taste novel food in children. *Appetite*, *51*(1), 156-165.

consider the environmental impact of the food system from transportation to waste. An invited facilitator taught twelve learners a crocheting technique using recycled plastic bags. This activity built on those earlier discussions about food packaging and the journey of "waste" once discarded. Learners were shown a crocheted pot that the facilitator had made, and provided instructions on how to make "yarn" from the bags by cutting them into long looped strands. The technique was taught using crochet hooks and with fingers alone, so that the learners could take the practice home without needing to purchase materials. All four of the learners interviewed at the end of the program, cited this activity as something new that they learned and liked in the program. One learner stated, "*I didn't even know you could do something like that!*" The learner here is commenting on his concrete experience learning a new skill.

#### Brown Rice and Broccoli

The after-school program "theme song", Brown Rice and Broccoli was shown during the first week of the program to counter a popularized music video made by kids about their favorite snack foods. Learners were first shown the "Hot Cheetos and Takis" video, which featured children their own age singing and rapping. They were asked what they thought about the song and the fact that these children created a music video. Some of the learners said, it was cause they want to be famous rappers. When asked about where Hot Cheetos and Takis come from and what they are made of, one learner stated, *"I don't know, but I know that white people created them to make us sick.*" This perceived oppression by the food industry on low-income, minority populations is an example as to why utilizing critical race pedagogy is appropriate in this cultural context.

They were then shown the Brown Rice and Broccoli video, a response about nutrition and health created by high school students to the "Hot Cheetos and Takis" video. Following the video, learners talked about what brown rice and broccoli was. One learner stated that broccoli looks like little green trees. They unanimously said they did not know about brown rice. Throughout the rest of the program, learners continued to sing the chorus to "Brown Rice and Broccoli." During the fourth week of the program one learner stated, "we are gonna serve brown rice and broccoli next [session] ... I asked my mom to make brown rice and broccoli." The learner here is referring back to her concrete experience of watching the music video and expanding to the abstract conceptualization of having someone create the mentioned dish. Something that she has never seen or tasted before but that she has increased interest in, based on her experience with the song.

A new learner, during the third week of the program, began singing the song and when asked where she had heard it before, she pointed to a repeat learner and said *"she taught me it"*. These two examples show that learners are taking their experiences from the program and sharing them with their families and with the community.

#### Snack Preparation Lesson

A local food entrepreneur taught learners in the program snack preparation. Alternative cooking programs with youth have been shown to increase willingness to try foods and to increase fruit and vegetable consumption.<sup>63,64,65</sup>

During the session she discussed benefits of eating healthy foods and showed them how to prepare some of these healthy alternatives. Learners made agave-sweetened lemonade and had a bitter and sour tasting session. After tasting straight fresh-squeezed lemon juice, one learner

<sup>&</sup>lt;sup>63</sup> Gibbs L, Staiger PK, Johnson B, Block K, Macfarlane S, Gold L, et al. Expanding children's food experiences: the impact of a school-based kitchen garden program. J Nutr Educ Behav 2013;45(2):137–46. 10.1016/j.jneb.2012.09.004

<sup>&</sup>lt;sup>64</sup> Cullen, K. W., Watson, K. B., Zakeri, I., Baranowski, T., & Baranowski, J. H. (2007). Achieving fruit, juice, and vegetable recipe preparation goals influences consumption by 4th grade students. *International Journal of Behavioral Nutrition and Physical Activity*, *4*(1), 1.

<sup>&</sup>lt;sup>65</sup> Wardle J, Herrera M-L, Cooke L, Gibson EL. Modifying children's food preferences: the effects of exposure and reward on acceptance of an unfamiliar vegetable. Eur J Clin Nutr 2003;57(2):341–8. 10.1038/sj.ejcn.1601541

pointed to his jawline and said "*I feel it here! And my eyes are popping out.*" Another learner tried a bitter apricot seed and said, "*I don't like that, but maybe I'm not used to it.*" This speaks to the way learners showed growth in the way the expressed preferences and the vocabulary used to describe foods.

Learners also constructed apple slices with a selection of toppings. To follow with the program theme of providing opportunities for free choice, the learners were given the chance to select the toppings as they wanted. Topping included: *peanut butter, almond butter, granola, dried fruit, unsweetened dried coconut,* and *nuts.* Learners were enthusiastic about participating in this hands on activity and nearly all of the learners chose to put an ingredient on their apple slice that they had never tried before. Over half of the learners requested seconds for this snack.

#### Additional Evidence of Impact

#### Communication of Preference and Changes in Eating:

Learner attitudes toward trying new foods appeared to change throughout the program. The majority of learners had negative reactions to new foods on their first day of the program. A consistent theme of *"it's nasty"* was repeated by first time learners for almost all new items tried on their first day of the program. As learners continued to attend the program, this vocal reaction to trying new foods changed and learners began to use new and more detailed language to communicate food preferences. When asked about what snack he tried that he didn't think he was going to like, a 9-year old participant stated:

"I looked at 'em like, ummm this is not gonna taste good, so I said, I'm gonna, ok let me just try it to see what it gonna tastes like, so I tasted it and said, Ok that's good and I started eating it "

This type of reaction was different than the aforementioned negative *"it's nasty"* response commonly heard from learners early on. In addition to increased overall acceptability of new foods, observations were made as to how learners were communicating dislikes. Learners were less likely to proclaim loud negative statements about food and more likely to simply choose not to eat something if they already knew that they did not like it.

Towards the end of the program, and still now as we work with many of the same learners during the summer program, the repeat learners will say "you can't know you don't like something, if you've never tried it." This mantra has resonated with repeat learners in the program. Learners have adopted a new culture of eating in the program too. In the start of the program, having learners sit and wait to be served was a challenge. Learners grabbed at food and pushed others aside to be served first. After matriculating through the four weeks, learners wait to be served, while sitting and are able to assist with service of others before themselves. One learner pointed out while serving his peers, *"I can't serve him cause he's not sitting in the circle."* Upon hearing this, the standing learner moved to a spot in the circle and sat down. This is a stark difference from the initial anger and frustration seen in learners at the start of the program when they did not get their way.

#### Exhibiting Abstract Conceptualization of Ideas:

Following the program, one 8-year old learner stated that he was going to save all of his apple seeds so that he can offer not only one apple to his father but also infinite apples when he grows an apple tree from the seed. He said,

"if I give him just an apple, then it's only one thing, he can't share it with my grandfather or any one else, but if I give it him, or I mean, give him a tree of apples, then

the apples from that tree can turn into other apple trees that can be given as gifts too!" In this example, learner has not only processed the concept of food coming from seed but he has also exhibited abstract conceptualization. The learner understands that beyond the tree that will grow from the apple seed, food will be produced and that the cycle will continue.

On the road to the farmers' market, we facilitated a discussion about the places that their families shop for food. One learner answered that his family shops at the "*Buy Low, but we call it Buy High, cause it is supposed to be cheap, but it's not*". This is an example of the awareness that children have to the food-related stresses in the household. These stresses not only affect nutrition intakes but also mental health. The program aimed to expose learners to the multiple

ways that people access food throughout the city in an effort to diversify conceptions of what food access looks like. The program reached this aim through these different field trips. Following the farmers' market trip, a couple of learners mentioned that they had "*never seen food sold outside like that before*". Another learner said, "*that [farmers' market] was really cool...Maybe one of those markets could be at my school?*" The activity succeeded in showing learners alternative food access points and propelled ideas for involvement in their community food system, another example of learners exhibiting abstract conceptualization.

#### Chapter IV. Discussion, Conclusion, and Recommendations:

#### Challenges to implementation

Time was a significant constraint for us throughout the program. Many of the planned curriculum involved field trips, which we felt was a critical component of the program; however, transportation from the garden site during rush-hour meant much more time than expected on the bus. One solution we found was to use bus time for some of the discussion-based activities, for reflection on experiences, and for conducting a focus group style discussion for assessments.

Some learners were inconsistent with attendance. Even though learners cited liking the program, there were only 10 learners, of the 33, that attended more than half of the sessions. Although a clear explanation for this was not found, we hypothesized that this may be attributed to societal norms of attendance. In addition, we wanted students to be choosing to attend, since this is a supplemental program. The 10 learners that consistently attended the program may have self-selected as truly interested in the program. Other conflicts to attendance included sports and extra-curricular activities through school. Consideration for these conflicts should be made when planning future programming with learners as they progress to middle school where extra-curricular activities may be increasingly emphasized.

#### **Recommendations and additional considerations for implementation**

#### 1. Community Growing Partnerships

A key component of the curriculum involves participation in gardening activities. The program requires an established garden that has someone to consistently manage and maintain it throughout the program. Partnering with local growers can help guarantee a constant growing space in which learners can work. Creating a new garden for this program, is not recommended, as it takes significant time to build a multi-sensory plot.

Another key component of the program is inviting guest facilitators to work with learners, particularly local people working within the food system. Using GWYA's local network we worked with a total of eight local organizations and businesses to enrich learning opportunities for the students. Growers should have a strong foothold in the local food system, which can help with establishing appropriate guests to bring into the program. Considering the program is aimed at African American youth, we feel that people of color are the most appropriate guests to facilitate and engage with learners.

#### 2. School Lunch Strategies

Learners expressed throughout the program, their dislike of the "nasty" school lunches that they encounter daily at school. When asked "What is your favorite school lunch?" multiple learners shouted, "nothing!" and another learner stated that, "*all school lunch is nasty*. " Two learners indicated not eating anything all day prior to one of the sessions. Incorporating an activity that works with learners to navigate the school lunch menu and establish items ahead of time that they might be willing to eat could be one approach to mitigating this issue. Public School menus are available online and can be used as a resource to develop strategies with students for the coming days. Point out to them that they have been so brave to try food with us, what could they try eating from the items on this menu? They could be given a challenge throughout the weeks to try at least a bite of something new. Then the learners could share their experiences with the group during the following session. This will help prepare them for the decisions ahead in the week. And if the online menu isn't matching what students say is being served, they could start an advocacy campaign to get the school board to make changes.

Consider working with students to write a letter to the school board, requesting the changes. Turn them into advocates for nutrition, health and wellness for themselves and for their peers.

#### 3. Incorporate Facilitator Interviews into Evaluation

There were many adults involved in the execution of this pilot program. Hearing each of their perspectives on the program can help bring further insight to best practices and future revisions or additions to the curriculum. An in-depth interview guide was created, however, facilitators and other program participants should be compensated for interview time. This was not originally built into the budget, but should be considered for the future.

#### 4. Program Location

If possible, this program should be run inside the community. The reality is that in many regards, youth lack control over their food choices. Involving parents and family members in this program could have a deeper impact on dietary behavior change. Visibility and access are crucial for family engagement. The Community Center coordinator stated that, *"once parents see that their kids are excited about the program, they will be more interested in participating."* Children can be an entry point to working with adults in the population to reach greater impacts on nutrition, health, and well-being

#### 5. Expansion and Future of the Program

There is potential to turn this program into something longer running that carries youth through adolescence and into early adulthood. The population that this program targets is caught in a cycle of poverty, toxic stress, and poor health. Many of the students have behavioral issues that stem from the environment in which they live. Working with learners for only six-weeks, will not have the same lasting impact that a ten-year program could reach. A ten-year program, working with the same youth could lead to critical civic engagement.

There are so many environmental factors that can unravel the behaviors established during program hours. Daily exposure to chronic stress in the household and community, bear down on children in this and are ultimately experienced as traumas. If food literacy programs like this one carry learners through adolescence and into adulthood, they could be instrumental in building the next generation of food justice, racial justice, and health justice advocate within the community. The objective is two-fold: change the food environment to better serve health to the community and grow the economy from within. This can be accomplished with engagement in food systems. An intensive decade-long program could move learners into a state of self-sustainable health and economic wellness.

An expanded program will require facilitator training, to increase capacity for implementation of the program. The facilitators from Grow Where You Are can provide this training to interested community members already affiliated with the partnering community center or school. In addition to building capacity in these individuals, the program could pull continuing learners as they grow in the program, to become junior facilitators. This model would ensure more sustainability of the program from within the community.

#### **References:**

- A-L. Frisch, L. Camerini, N. Diviani, P.J. Schulz. Defining and measuring healthy literacy. How can we profit from other literacy domains? Health Promotion International, 27 (1) (2012), pp. 117-126
- American Civil Liberties Union, Unshared Bounty: How Structural Racism Contributes to the Creation and Persistence of Food Deserts. June 2012. Retrieved on June 28, 2016, from http://www.racialjusticeproject.com/wp-content/uploads/sites/30/2012/06/NYLS-Food-Deserts-Report.pdf
- Annie E Casey Foundation. "Changing the Odds: the race for results in Atlanta". 2015. Retrieved on June 21, 2016, from http://www.aecf.org/m/resourcedoc/aecf-ChangingTheOddsWeb-2015.pdf
- Bawden, R. J. (1998) The Community Challenge: The Learning Response. New Horizons 99: 40-59
- Berezowitz, C. K., Bontrager Yoder, A.B., & Schoeller, D.A. (2015). School gardens enhance performance and dietary outcomes in children. Journal of School Health, 85(8), 508-518.
- Bhattacharya, J., Currie, J., & Haider, S. (2004). Poverty, food insecurity, and nutritional outcomes in children and adults. *Journal of health economics*, 23(4), 839-862.
- Boone-Heinonen, J., Gordon-Larsen, P., Kiefe, C. I., Shikany, J. M., Lewis, C. E., & Popkin, B. M. (2011). Fast food restaurants and food stores: longitudinal associations with diet in young to middle-aged adults: the CARDIA study. *Archives of internal medicine*, 171(13), 1162-1170.
- Brown BJ, Hermann JR: Cooking classes increase fruit and vegetable intake and food safety behaviors in youth and adults. J Nutr Edux Behav. 2005, 37 (2): 104-105. 10.1016/S1499-4046(06)60027-4.
- Coleman-Jensen A, Rabbitt MP, Gregory C, Singh A. <u>Household Food Security in the United</u> <u>States in 2014</u>, ERR-194, U.S. Department of Agriculture, Economic Research Service, September 2015.
- Community Commons. US Department of Agriculture, Food and Nutrition Service, USDA SNAP Retailer Locator: May 2015. Additional data analysis by <u>CARES</u>.
- Cook, J. T., & Frank, D. A. (2008). Food security, poverty, and human development in the United States. *Annals of the New York Academy of Sciences*, 1136(1), 193-209.
- Cullen, K. W., Watson, K. B., Zakeri, I., Baranowski, T., & Baranowski, J. H. (2007). Achieving fruit, juice, and vegetable recipe preparation goals influences consumption by 4th grade students. *International Journal of Behavioral Nutrition and Physical Activity*, 4(1), 1.

- Davis, J. N., Martinez, L. C., Spruijt-Metz, D., & Gatto, N. M. (2016). LA Sprouts: A 12-Week Gardening, Nutrition, and Cooking Randomized Control Trial Improves Determinants of Dietary Behaviors. *Journal of nutrition education and behavior*, 48(1), 2-11.
- De Marco, M. M., Woods Smith, T., Kearney, W., & Ammerman, A. (2016). Harvest of Hope: The Impact of a Church Garden Project on African American Youth and Adults in the Rural American South. *Journal of Hunger & Environmental Nutrition*, 1-11.
- Douglas S. Massey, Origins of Economic Disparities: The Historical Role of Housing Segregation in Segregation: The Rising Cost for Americans 68 (James H. Carr & Nandinee K.Kutty, eds., 2008)
- Drewnowski, A., & Specter, S. E. (2004). Poverty and obesity: the role of energy density and energy costs. *The American journal of clinical nutrition*, 79(1), 6-16.
- Feeding America. *Child Development*. Retrieved on July 2, 2016, from http://www.feedingamerica.org/hunger-in-america/impact-of-hunger/child-hunger/childdevelopment.html?referrer=https://www.google.com/
- Food Literacy Center. 2015. Retrieved July 2, 2016, from http://www.foodliteracycenter.org/what-food-literacy.
- Food Research and Action Center. Understanding the Connections: Food Insecurity and Obesity. 2015. http://frac.org/pdf/frac\_brief\_understanding\_the\_connections.pdf
- Ford, M. C., Gordon, N. P., Howell, A., Green, C. E., Greenspan, L. C., Chandra, M., ... & Lo, J. C. (2016). Obesity Severity, Dietary Behaviors, and Lifestyle Risks Vary by Race/Ethnicity and Age in a Northern California Cohort of Children with Obesity. *Journal of obesity*, 2016.
- Fordyce-Voorham, S. (2011). Identification of essential food skills for skill-based healthful eating programs in secondary schools. *Journal of nutrition education and behavior*, *43*(2), 116-122.
- Freire, Paolo. "Pedagogy of the oppressed (revised)." New York: Continuum(1996).
- Fulton County Department of Health and Wellness. Healthy Eating. Retrieved on June 28, 2016, from http://www.fultoncountyga.gov/partnership-to-improve-community-health/7605-healthy-eating.
- Gibbs, L., Staiger, P. K., Johnson, B., Block, K., Macfarlane, S., Gold, L., ... & Ukoumunne, O. (2013). Expanding children's food experiences: the impact of a school-based kitchen garden program. *Journal of nutrition education and behavior*, 45(2), 137-146.
- Gibson, E. L., Kreichauf, S., Wildgruber, A., Vögele, C., Summerbell, C. D., Nixon, C., ... & Manios, Y. (2012). A narrative review of psychological and educational strategies

applied to young children's eating behaviours aimed at reducing obesity risk. *Obesity reviews*, *13*(s1), 85-95.

- Giroux, H.A. (2003). Critical educational theory and educational practice In A. Darder, M. Baltodano, & R.D. Torres (Eds.), The critical pedagogy reader (pp. 27-55). New York: Routledge Falmer.
- H.K. Seligman, D. Schillinger Hunger and socioeconomic disparities in chronic disease. *New England Journal of Medicine.*, 363 (1) (2010), pp. 6–9 (Jul)
- Huang (2010) Does food insecurity affect parental characteristics and child behavior? Testing mediation effects. *Social Science Review*, September, 381-401.
- Hunger in America 2014 Report. Retrieved on July 20, 2016, from http://www.acfb.org/sites/default/files/hunger-in-america-2014-fullreport.pdf? ga=1.43806629.1806158545.1467855001.
- Lynn, M. (2004). Inserting the 'Race' into Critical Pedagogy: An analysis of 'race based epistemologies'. *Educational Philosophy and Theory*, *36*(2), 153-165.
- Markowitz, A. J., Ryan, R. M., & Johnson, A. D. (2014). Childcare subsidies and child care choices: The moderating role of household structure. *Children and Youth Services Review*, 36, 230-240.
- McAleese, J. D., & Rankin, L. L. (2007). Garden-based nutrition education affects fruit and vegetable consumption in sixth-grade adolescents. *Journal of the American Dietetic Association*, 107(4), 662-665.
- Morris, J., Neustadter, A., & Zidenberg-Cherr, S. (2001). First-grade gardeners more likely to taste vegetables. *California Agriculture*, 55(1), 43-46.
- Murray, I.E. & Milner, H.R. Urban Rev (2015) 47: 893. doi:10.1007/s11256-015-0339-4
- Ogden CL, Carroll MD, Kit BK, Flegal KM. Prevalence of childhood and adult obesity in the United States, 2011-2012. Journal of the American Medical Association 2014;311(8):806-814
- Parmer, S. M., Salisbury-Glennon, J., Shannon, D., & Struempler, B. (2009). School gardens: an experiential learning approach for a nutrition education program to increase fruit and vegetable knowledge, preference, and consumption among second-grade students. *Journal of nutrition education and behavior*, 41(3), 212-217.
- Potts, R. G. (2003). Emancipatory education versus school-based prevention in African American communities. *American Journal of Community Psychology*, 31(1–2), 173– 183.

- Reardon, S. "Giant Food grocery store's closing adds to food desert issue along Bankhead corridor". Creative Loafing Feb. 16, 2016. Retrieved on June 28, 2016, from http://clatl.com/freshloaf/archives/2016/02/16/giant-food-grocery-stores-closure-adds-to-food-desert-issues-along-bankhead-corridor
- Region of Waterloo Public Health: Food skills of Waterloo region adults. 2009, Retrieved on June 26, 2016 from http://chd.region.waterloo.on.ca/en/healthylivinghealthprotection/foodskills.asp
- Reverdy, C., Chesnel, F., Schlich, P., Köster, E. P., & Lange, C. (2008). Effect of sensory education on willingness to taste novel food in children. *Appetite*,51(1), 156-165.
- Robbins, J. M., Mallya, G., Polansky, M., & Schwarz, D. F. (2015). Prevalence, disparities, and trends in obesity and severe obesity among students in the Philadelphia, Pennsylvania, school district, 2006–2010. *The Childhood Obesity Epidemic: Why Are Our Children Obese—And What Can We Do About It*?, 29.
- Skinner AC, Skelton J, Prevalence and Trends in Obesity and Severe Obesity Among Children in the United States, 1999-2012. JAMA Pediatrics, doi:10.1001/jamapediatrics.2014.21, 2014.
- Slack and Yoo (2005) Food hardship and child behavior problems among low-income children. *Social Service Review*, *75*, 511–536.
- Subramaniam, A. (2002). Garden-based learning in basic education: A historical review. Monograph, 1–11. Retrieved June 3, 2006.
- Travers, K. D. (1997). Nutrition education for social change: critical perspective. *Journal of Nutrition Education*, 29(2), 57-62.
- Trust for America's Health. *F as in Fat: How Obesity Threatens America's Health.* Washington, D.C.: Trust for America's Health, 2013.
- United Nations Educational, Scientific and Cultural Organization. *Strengthening Education Systems*. Retrieved May 28, 2016, from http://unesco.org/news/en/education/themes/strengthening-education-systems/quality-framework/technical-notes/influential-theories-of-learning/
- U.S. Census Bureau Current Population Survey (CPS).
- U.S. Center for Disease Control and Prevention. Big Cities Health Inventory: Health Inventory for Atlanta (Fulton County), GA. Retrieved July 20, 2016, from https://bchi.bigcitieshealth.org/place/Atlanta%20(Fulton%20County),%20GA#categories -section

- U.S Department of Agriculture, Access to Affordable and Nutritious Food: Measuring and Understanding Food Deserts and Their Consequences: Report to Congress at iii [2009].
- U.S. Department of Agriculture, food access research atlas. Last update June 14, 2016. Retrieved July 12, 2016, from http://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas.aspx .
- U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2015 2020 Dietary Guidelines for Americans. 8<sup>th</sup> Edition. December 2015. Retrieved on June 28, 2016, from http://health.gov/dietaryguidelines/2015/guidelines/
- Vidgen H &Gallegos D. What is food literacy and does it influence what we eat: a study of Australian food experts. (2011). Queensland University of Technology, Brisbane, Queensland.
- Wardle, J., Sanderson, S., Gibson, E.L. & Rapoport, L. (2001) Factor-analytic structure of food preferences in four-year-old children in the UK. *Appetite* **37**, 217–223.
- Warfield-Coppock, N. (1992). The Rites of Passage Movement: A Resurgence of African-Centered Practices for Socializing African American Youth. *The Journal of Negro Education*, 61(4), 471-482. doi:1. Retrieved from http://www.jstor.org/stable/2295365 doi:1
- Wardle J, Herrera M-L, Cooke L, Gibson EL. Modifying children's food preferences: the effects of exposure and reward on acceptance of an unfamiliar vegetable. Eur J Clin Nutr 2003;57(2):341–8. 10.1038/sj.ejcn.1601541
- World Cancer Research Fund International. *Nourishing Framework*. Retrieved July 3, 2016, from http://www.wcrf.org/int/policy/nourishing-framework.
- Zaslow, Bronte-Tinkew, Capps, Horowitz, Moore, and Weinstein (2008) Food Security During Infancy: Implications for Attachment and Mental Proficiency in Toddlerhood. Maternal and Child Health Journal, 13 (1), 66-80.

# APPENDIX



# New Power Generation Curriculum Facilitator Guide





# **Table of Contents**

# Introduction:

**Appendix A:** Monitoring and Evaluation Data Collection Tool **Appendix B:** Supplemental Activity Resources

# **New Power Generation After School Program**

Welcome to the New Power Generation After School Program Curriculum! This program is designed to help young learners, age 8-13, become more aware of the food environment in their own communities and to become conscious advocates for their own health and wellbeing. In an age where consumerist culture literally consumes our own ability to make self-aware choices, and an age where we feel closer to brands than to actual growers, we recognize that healthy eating is not an easy action. And even when we are making choices based on health, there is so much conflicting information out there about what is healthy coming through the media, that choosing an eating strategy can become paralyzing. Young learners have limited independence in making their own food choices, however, as they move into adolescence and adulthood, we want to ensure that they will be capable of making autonomous decisions based on respect for themselves, their community, and for the environment. We also want them to have ideas about how they can be involved in re-shaping aspects of the food system that aren't working for their community. The New Power Generation (NPG) After School Program aims to show learners a complete picture of the agricultural system, with a particular emphasis on food. We have broken up this system into four components: Food Production, Food Marketing & Sales, Food Preparation, and Food Consumption.

When learners start to see how agriculture is connected to all aspects of their lives, they will begin to consider where they fit into the picture and where they may want to fit in, in the future.

#### Who is this Guide For?

The New Power Generation Curriculum Guide was designed for <u>EDUCATORS</u> that want to bring learners into the wide world of agriculture OR for <u>GROWERS</u> that want to extend their work into community education!

It can be integrated into an existing program or stand on its own. Whether you are a grower or you plan to bring growers in to work with you, access to a garden or farm is critical for this program to run. If you do not currently have garden/farm access, we



encourage you to partner with an existing growing group with an established plot, as the creation and maintenance of a garden is a huge undertaking and requires years to develop. In addition to providing garden/farm access, growers are an essential part of this program because of the connections they hold to the greater food system.

# Monitoring Your Program:

We suggest tracking the process of your program implementation in three ways.

- (1) Complete the Session Data Worksheet found in Appendix A of this guide, following the completion of every session. If you have multiple facilitators, you can each fill them out and then cross-reference them, for more accuracy and detail. These worksheets will come in handy for any progress or final report that you need to write for program funders or supervisors.
- (2) Filming reflection and discussion sessions will help to track the progress of learners and will help capture qualitative data to include in your report. Having these conversations on record will help validate the effectiveness of the program.
- (3) Photograph the program! A picture is worth a thousand words! These don't only capture the magic of learners in their element, but they can also be used as reference points for student numbers and participation in activities.
- (4) In-depth Interviews should be conducted with at least a few of the learners and the facilitators involved in the program. Guides for these interviews can be found in Appendix A of this guide. Consider budgeting in money for the time taken to conduct interviews.

# Providing Choice and Voice to Young Learners:

A key component of the curriculum is providing learners with the opportunity to CHOOSE. Since this is a supplementary program, apart from required schooling, we feel that learners should be able to choose to participate in the overall program and choose to participate in each activity. We feel that this is the most appropriate disciplinary approach for a curriculum like this, which aims to place power into the hands of learners, to help prepare them for making decisions that affect their lives in the future.



# Program Objective:

The New Power Generation After School Program has five main objectives:

- 6. Introduce learners to the foundational aspects of growing food.
- 7. Introduce learners to the basics of the food supply chain.
- 8. Provide opportunities for practicing hands on snack and simple meal preparation.
- 9. Provide opportunities for learners to employ decision-making skills, for identify their own food preferences, and for trying new healthy, whole, plant-based foods.
- 10. Provide opportunities for time spent outside engaged in physical activity in both the natural and the built environments in the community

We believe that by reaching these objectives you will be building, activating, and empowering a youth community in your town that values, individual, community, and environmental health.

# **Overview of Program Components:**

The NPG guide is comprised of 12 sequential, two-hour sessions. The primary activities for this program focus on four main themes: <u>Food Production</u>, <u>Food Marketing & Sales</u>, <u>Food Preparation</u>, and <u>Food Consumption</u>. In addition to these food systems themes, <u>Mindfulness & Well-being</u> activities are interspersed throughout the program. The curriculum is made up of field trips, guest speakers, garden work, and facilitated discussions. In addition to these components, the program is centered on communally enjoying food together, which means healthful plant-based snacks will be provided to learners each day. We highly encourage partnering with a local chef to prepare the snacks for this program. A recipe suggestions section can be found in the Appendix of this guide.

The table below gives a brief overview of the sessions included in this guide. The following symbols indicate the features included in the session, which may require additional coordination and planning.

FIELD TRIP
VIDEO CLIP
INVITE GUEST
GARDEN WORK

		SAD-		
Sessions	Aim	Main Takeaway	Special Instructions	Pages
1. Introduction and Nature Walk	Immerse learners in the local natural environment	We live in a city built in a forest!		13-16
2. Telling Our Own Story	For learners to use critical thinking to develop a story	We all have unique experiences and there are many ways to share our unique "stories!"	<u>*</u>	17-21
3. Intro to Garden Work	Basic Introduction to growing. Experience all steps from seeding to eating.	We can grow our own food!	ניּז	22-27
4. Farmers' Market Field Trip	Expose learners to local food sales in a collective community model	We all have skills and knowledge that can be used to benefit our community!		28-30
5. The Journey our Food Takes	Introduce learners to the concept of "far away" foods versus "locally grown" and discuss the pros and cons	There are external costs associated with far traveling foods!		31-33
6. Finding our Rhythm	Learners will build music as a group and introduce their own rhythms.	Contributions from different parts are required to make music!	<u>*</u>	34-36
7. Inside the Grocery Store	Get learners to critically think while in the grocery store	The grocery store is MORE that just food. It's designed with		37-39

				S
8. Tricky Techniques	Introduce learners to marketing techniques used by food companies	Each color, character, word on a package is intentional and meant to influence our choices!		40-42
9. Healthy Eating on Our Own: Part I.	Introduce learners to snack preparation and help them come up with strategies for the lunchroom	We can carry our "courageous tongues" to the lunchroom!	<u>\$</u>	43-44
10. Eagles in the Garden	Have learners practice self- awareness in the garden and have fun using new gardening skills	We have the ability to take in much more information than we knew!	<u>C:</u> 2	45-47
11. Healthy Eating on Our Own Part II.	Introduce learners to snack preparation	We can make tasty foods from raw ingredients that resemble store bought packaged foods!	<u>.</u>	48-49
12. Building our World	Have learners consider the importance of the triple bottom line for a healthy community and provide an opportunity for learners to serve members of their	We have the potential to do work that benefits ourselves, our community, and the environment!		50-54



In addition to the above activities, each session will begin with a DAILY OPENER and include a HEALTHFUL SNACK BREAK. Further detail on these two session components is outlined below.

# DAILY OPENER:

Each session should begin with a daily opener. This is a way to root learners in the session space and to build a sense of routine for increased focus. The goal of these exercises is to create mindfulness and a sense of self-awareness within the space of this program. Below is the procedure for the daily opener, but feel free to include your own ideas based on your experiences with these learners and based on the resources you have available.

# Procedure:

<u>Energized warm ups:</u> Begin with an energetic warm-up. Learners will likely have pent up energy from the long school day and the bus ride, if they were transported to a new location for your program. You can have them run laps around the garden space or try different types of relays – *bear run, frog hop, crab-walk, duck walk*. Make this about focusing on the technique of the walk or running style rather than about winning. Introducing a competitive component can sometimes derail the group vibe.

Invite a certified yoga instructor: We recommend having someone with experience guiding youth through yoga or mindfulness exercises. You will do some form of this daily opener at the start of each session. Feel free to mix it up each session, so that learners don't get bored with the repetition, but also remember to repeat certain poses, concepts, and themes for maximum knowledge uptake. Once learners are familiar with some of the poses, spend one or two sessions having them suggest poses to run through and have them demonstrate these poses for the group. This is a good opportunity for learners to exhibit the new skills and knowledge that they have obtained through the program. It also provides a chance for learners to consider their preferences and apply their individual choice.

Intention circle: Close the daily opener in a circle where learners can introduce themselves and make a personal statement for the day. This can be their age, grade, something new they learned during yoga, how they are feeling, a food they love, a meal that they have helped prepare at home, etc.... For the first session, have the learners set intentions. Explain to the learners that we will go around and state our names and our intentions for our time together during this program. You can describe these intentions as how we will interact with each other while we are together and what we want to do while in this space/group or what we want to learn during the program.

Say that this is a moment for turning *off* our mouths. A moment to think in silence, without concern for what is going on with the others around you. Once you have all taken the time to think on your own, we will "come together" and share our intentions as a group. Always give learners ample time to answer independently, so that they have maximum voice. If certain learners are feeling shy, ask them if they feel like sharing/talking today and if they say "no", allow them to make that choice for the day. Before breaking the circle give the learners clear instruction on how you all will be moving into the next activity.





# Healthful Snack Breaks:

This program provides a great opportunity to introduce learners to new plant-based foods in an appealing way. Studies have shown that children are more likely to eat foods with which they are familiar. We encourage you to work with a local chef in



designing a menu for snacks that resemble popular and familiar foods, since studies have shown that children are more likely to eat foods with which they are familiar<sup>66</sup>.

Snack breaks should be a time for the entire group to sit and eat collectively. Our culture tends to favor that which is quick and convenient, losing the sense of community that is fostered through sharing food. This program aims to build a positive environment for trying new foods and sharing experiences with one another. Each learner is encouraged to identify his/her own preferences through discussing the taste, appearance, smell, and texture of foods. Use snack time as an opportunity to explore and activate "courageous tongues!"

<sup>&</sup>lt;sup>66</sup> Wardle, J., Sanderson, S., Gibson, E.L. & Rapoport, L. (2001) Factor-analytic structure of food preferences in four-yearold children in the UK. *Appetite* **37**, 217–223.





# Session 1: Introduction and Nature Walk

**Objective:** To begin the process of growing food and to build curiosity in the students about the natural environments surrounding them.

### By the end of this session learners will be able to:

(1) Identify the different seasonal seeds that were planted in the garden;

(2) name three vegetables that grow in Georgia during the current season;

(3) identify one yoga pose from the daily opener;

(4) name the nature preserve that you visited and which direction it is located from where you came.

Materials: A loud drum, blindfolds, seasonally appropriate seeds.



**Overview:** This initial session of the program will begin in the garden in a circle where learners will be led through their first "daily opener" session. They will also share their names and set intentions for the space. Learners will then be given seeds to be planted in already prepared garden bed(s). Next the learners will be taken to a local nature preserve for a guided nature walk to orient them to the forest inside of their city. A blindfolded drum stalk will follow the nature walk, where the learners will be guided by the sound of a drummer through the woods. They will then take turns to create their own rhythm on the drum.

# Before You Begin

# <u>To Do List:</u>

# 1. Invite a Drum Circle Facilitator:

This session focuses on the importance of story telling and finding voice in all forms: music, art, poetry, etc. We suggest identifying local artists, drummer or storytellers to invite as guests. These artists may practice professionally or recreationally; trust your judgment on who will best connect with the learners in your group.

This may require significant planning ahead of time, to accommodate schedules. The blindfolded drummer stalk and the drum circle can be enhanced by using a professional drummer, but is not a requirement to accomplish the session. You or another facilitator can use a noisemaker or drum to provide the rhythms for the learners to follow as long as the noise carries far enough. This may be important to test out before doing the activity.

If you decide that you would like to invite a local musician, drummer or music teacher, to facilitate the drum stalk and drum circle activities, you might consider searching for drum circle facilitator networks in your community. You can search on the *Drum Circle Facilitator Guild* website at <u>dcfg.net</u>. If you or a colleague is planning to lead the drum circle activity for the first time, search "drum circle facilitation" on YouTube for some great examples to get started!

The drum circle activity can be fun with actual drums and noisemakers, but can also be accomplished with no instruments, by selecting rhythms that can be created by just the body (ex: clapping, leg slapping, vocal rhythms). If you would prefer actual noisemakers but don't have these available, you can create them using bottles filled with different beads, coins, seeds, etc... Look online for some easy DIY instructions for homemade noisemakers.

# 2. Select and Test Seeds:

Test seeds that you intend to plant with learners by sowing them yourself a couple of weeks before the start of the program. This way you can ensure that the learners will have a positive experience growing their own plants and not disappointed that their seeds don't grow. Seeds should be appropriate for the season and quick to germinate. For example, radishes germinate within 3-10 days and are typically ready to harvest within 20-30 days. Below are some good resources and websites for checking local growing seasons. Other good seeds for children: sunflower, cucumbers, bean.

# Session 1 Procedure:

### Daily Opener (Procedure found on Pages 8-9)

# Activity 1. Program introduction (20 min)

Following the daily opener, remain in the circle and ask the learners how many of them have ever planted a seed before. Allow a few learners time to share their experiences before moving on. You can then ask them about what is needed for a seed to grow. Allow some time for learners to give their answers. Pull correct answers from the those given. You can use the analogy of plants as children. Say: *what do we need to grow big and strong?* Some answers may be: foods. *What do we need to live?* Some answers may be food, water, and air to breath. Explain to learners that plants are living just like we are. They need food to grow big and strong too and the plant's food is found in the soil, they need water to thrive and they need air and sun to live.

# Healthful Snack and Water Break (20 min)

# Activity 2. Seeding in the Garden (15 min)

Now tell the learners about the different seeds you have for them to plant. Have them break up into groups based on what they would like to plant. Having them select the seed they want to grow will give them some ownership over the plants. Once learners are broken into groups, pass out seeds and instruct them in putting them in the ground.

Have someone from each group write the date and seed type on a broken blind with a sharpie and place it in the bed where the seeds have been planted. Tell them how much time they can expect to pass before the seeds sprout. Select one or two learners from each group to be sprout monitors. Have them check during each session over the coming weeks and report progress as the plants grow.

# Activity 3. Nature Walk: "Atlanta -- A city inside of a forest" (20 min) Once the group arrives at the nature preserve, lay some ground rules about how you expect them to act once inside the preserve.



Lead the learners along a path and provide them a history of Atlanta's natural history. Remember, the objective of this activity is to orient the learners to their natural environment in Atlanta and to explain how and why AGRICULTURE is relevant in Georgia.

# Activity 4. Blindfolded Drum Stalk (25 min)

Now that the group has been led around the nature preserve find a good stopping point, about a 3-minute walk from the drummer's location. Explain to the learners, that they will need to listen for the drum and walk towards the drummer's location. Ask, "What happens to sound as we get further away from it?" Some answers may be: it gets quieter, softer. Say, "exactly! And what happens when you are getting closer to a sound, noise, music, etc...? Some answers may be, it gets louder." Say: Right! So when you are searching for the drummer, pay attention to these things. Ask the group if they know how many senses we all have. Probe on what those senses are. Explain to the learners that when we stop using one of these senses, in this case, sight, we tend to enhance our other senses. For this activity, we will want to use hearing and feel the most. Tell them to be careful as they walk towards the sound of the drum and to use their feet to feel the ground underneath. As learners arrive at the site of the drummer, you can have them try beating the drum one at a time.

To end the session, have learners get in a circle and share how they are feeling after. This is an act of reflection and "checking-in" with oneself. This should be a theme threaded throughout the program to help learners reach a greater sense of selfawareness.


# Session 2: Telling Our Own Story

**Objective:** To introduce the idea that we all experience the world uniquely and that there are many ways to share our unique "stories."

**Data Collection "tip-in:"** Gather the baseline knowledge and attitudes of program participants around food production, preparation and consumption.

By the end of this session learners will be able to:

(1) comfortably answer questions about themselves in the group setting.

(2) play the "Ball of Questions" game.

(3) explain the theme of the story told at the end of the session in their own words

*Materials:* post-it notes, poster board, markers, computer, projector/screen (if *available*), ball of questions (see instructions in Activity 1), video or audio recorder (or note taker).



**Overview:** This session will begin with the daily opener. This session includes an evaluation activity that is meant to gather information about the learners' knowledge and attitudes about food and agriculture. Date collection activities are best facilitated with assistance from a note taker. The note taker can either write notes or video/audio record with proper permission from the guardians of the learners or program director. Once the evaluation activity is complete, the learners will some music videos about food, followed by a facilitated discussion. Then the learners will break up into groups to do a creative activity. In this activity, each group will create a myth/story, phone app idea or business idea based on the themes that they have been given.

#### <u>Before You Begin:</u>

#### <u>To Do List:</u>

1. Invite Storytellers:

This session is all about storytelling to follow up on the last session. Like last time, you will want to consider inviting a local storyteller to enhance the activities, however, this is not a requirement. An example story has been included in **Appendix B** for you or your colleagues to use, or you can use your own! Trust your own judgment on what story will work well with your group of learners and with the overall tone of this program. If you decide to search for storytellers to invite, there are often local storyteller networks that can be found online. In Atlanta, there is *Kuumba Storytellers*, an affiliate of the National Association of Black Storytellers. Many professional storytellers can be found on their site, <u>kuumbastorytellers.org</u>. There is also the all female dance, percussion and vocal ensemble group, *Giwayen Mata*. Their mission is to celebrate the lives of women and to uplift communities while perpetuating the cultures of Africa and the Afrikan Diaspora. Explore connecting with them at <u>http://www.giwayenmata.org/programming</u>.

# 2. Create the Ball of Questions:

You can use any medium to large-sized ball (e.g. soccer ball, kick ball, beach ball). Cover the ball with 15-30 strips of paper and write down each question you want to pose. Now tape the strip to the ball with masking tape, face down. Repeat for each question. See the activity procedure for questions to include on the ball.



#### Session 2 Procedure:

#### Daily Opener (procedure found on pages 8-9)

# Activity 1. Baseline Evaluation Ball of Questions (30 min)

This activity is used as both an icebreaker for the group, as well as a qualitative data collection game. To begin the game, explain to the learners that this is a question ball. Whoever has the ball in his/her hand, has the floor. Once you have the ball, you must



pull a strip of paper off and read the question on the other side out loud so that everyone can hear. Then proceed to give your answer to your question. If you do not know the answer, that is no problem! Just say that you don't know, or make a guess. Once we have finished with your question, throw the ball to someone else in the group who has not yet answered a question. (Facilitator note: You can pull from the question bank below, when creating the ball, or incorporate your own).

Question bank:

- 1. What is your favorite vegetable?
- 2. What is your favorite fruit?
- 3. What is a fruit that you have never tried but would like to try?
- 4. What is a vegetable that you have never tried but would like to try?
- 5. What is a vegetable that you have tried but would never want to eat again?
- 6. What is your favorite snack?
- 7. What is your favorite meal?
- 8. If you could grow any one fruit or vegetable in the garden here, what would it be?
- 9. Who is your favorite musician?
- 10. Where is your favorite place in your neighborhood?
- 11. Who is your favorite athlete?
- 12. In what month is your birthday?
- 13. What is your favorite song right now?
- 14. Show us your favorite dance?
- 15. What's your favorite fast food restaurant?
- 16. Do you cook?
- 17. Do you like water?
- 18. Do grapes have seeds?
- 19. What makes plants green?
- 20. How much water do you drink in a day?
- 21. What part of school lunch do you throw in the trash?
- 22. What is your favorite school lunch?
- 23. Which comes first, flower or fruit?
- 24. What meal do you love your mom/grandma/dad to cook?
- 25. What meal do you not like your mom/grandma/dad to cook?
- 26. What kinds of insects do you think you'll find in the garden?
- 27. Why would you see a grasshopper in a garden?
- 28. What does a plant need to grow?
- 29. What is the strangest vegetable you have ever eaten?
- 30. What is the strangest fruit you have ever eaten?



31. Have you ever gardened before?

# Healthful Snack and Water Break (20 min)

# Activity 3. Pile Sorting Activity (40 min)

For this activity the learners will be broken into small groups (3-5 learners). Each group will be given a topic: (1) Economics (2) Nature (3) Housing (4) Transportation (5) Energy

If you have younger learners in your group, make sure that they are grouped with some of the older learners to help with discussion. Each student group should have an adult within the group to help with instruction.

Give each group a poster board and sticky notes and tell them that they will have 5 minutes to write down words or phrases that come to mind related to their subject on the sticky notes. Demonstrate to show that you want one word per sticky note and that they should put sticky notes on the edge of the poster board. You can provide an example to them if it seems like there is still confusion.

Once the five minutes is up, explain to the students that they should look over all the words and phrases that have been written down by all of them. Tell them that you want them to separate these words/phrases into *three categories*. Tell them to look and see if any of the words or phrases have similarities, like "cars", "planes", "trucks" all need gas to run. Tell them that they can continue to add words to these *categories* while they develop them. Give the groups 10 minutes to work on this.

Now tell the groups that they are going to come up with a story, a smartphone app or a community business based on the words/phrases and categories that they came up with. Have them consider how their app or business will benefit them, the community, and the land (triple bottom line: YOU benefit, YOUR community benefits, the EARTH benefits). Give the group 20 minutes to work on this and then take 10 minutes to have each group present their idea at the end the activity.

Activity 4. Storytelling (20 min)

# (see Appendix B)

This activity is to help show learners the important tradition of storytelling. To begin, convey to the group the importance of creating and telling OUR own stories. Say, every single one of us has a story that is ours. We all uniquely experience the world around us and these experiences shape our story. Entire communities have stories, businesses have stories, and they all have sorts of "mythology" that they pass down. Think about a story that you have heard in your community. Maybe you remember something that someone told you about another person that turned out not to be true? If you don't tell your own story, someone else will, and what if they tell it wrong? It is important to not only be a consumer of other people's stories, but to create and tell your own true story.

If you have invited a storyteller or artist to tell the story, have them give the above introduction and then move into the story. Once the story is over, have learners go around the circle and identify what their story would be about.



# Session 3: Introduction to Garden Work

**Objective:** (1) To teach the students how to safely build a fire in a controlled space. (2) To demonstrate the steps of taking food from ground to mouth

# By the end of this session learners will be able to:

- (1) harvest in the garden
- (2) clean produce in preparation for cooking
- (3) identify at least 2 plants in the garden
- (4) explain procedure steps for safely building a fire

**Materials:** bingo cards (print from Appendix B), pens, fire/grill supplies, eating utensils



**Overview:** Learners will start with the "daily opener". They will then move into a getting to know you bingo activity. Following this activity, learners will have snack and will be given a brief introduction to the work that they will be doing in the garden. This is the first "work-day" in the garden and an opportunity for learners to be given instruction on tool safety and use. This day will also set the tone for how we behave in the garden, so be clear on any rules you intend to uphold during garden time. After working in the garden, learners will learn to prepare a snack made from the produce that they harvested. The session will end with a circle of intention, where learners will state something knew that they tried during the session.

# Before You Begin:

# <u>To Do List:</u>

1. **Invite Local Chef(s):** This is the first session that will involve food preparation. The aim is to have learners involved in the process of preparation so that they are comfortable. Note that that snack you prepare will need to be feasible in the garden environment. If you have access to a fire pit or chimenea, you can try cooking with the learners over an open flame!

- 2. Prepare the garden for a group visit: Prepare the garden ahead of time and select the key components that you would like to show to the kids. Starting with soil health, moving to seeding, transplanting, harvesting and finally preparing food for eating. The purpose of this garden day is to show the learners to full process from ground to mouth. Prepare a garden bed for transplanting and make sure you have mulching material on-site and ready. Consider what will be ready for harvest in the garden ahead of time. If your garden site is new or without ready-to-harvest-produce, you can take the learners to a different garden site if you have access or you can bring produce from elsewhere for the snack preparation demonstration.
- 3. Print out bingo card: A bingo game is played at the beginning of this session. The bingo card is included in this guide in Appendix B. One card per learner should be printed any time before the session on regular or recycles printer paper.

# Session 3 Procedure:

Daily Opener (Procedure found on Pages 8-9)

# Activity 1. Getting to Know You Bingo<sup>67</sup>

Explain to students that the lesson will begin with an activity to learn new things about each other. Provide each student with a Getting to Know You Bingo activity found in Appendix B and a pencil. Direct the learners to write their name in the free space in the center of the page. Point out the questions in the other boxes. Explain that they will ask each other these questions to find classmates who answer 'yes' to the questions. For example, if the Bingo box says "ever planted a tree" find a classmate who did that

<sup>&</sup>lt;sup>67</sup> Adapted from: *In The Defense of Food Curriculum*. Teachers College, Columbia University. 2015.

and write that person's name in the box. Instruct students that they can write any one classmate's name in only two boxes. The goal is to fill one row of boxes with names (across, down, or diagonally) as quickly as possible. Tell students to get up and start asking their classmates questions. Stop playing when someone calls out "Bingo!" and have everyone sit down. Once everybody is seated, read aloud the statements from the filled row on the winning Bingo sheet one by one. Ask everyone who would answer 'yes' to the question to stand up. Have everyone sit down before reading the next question. Continue until all questions in the winning row have been asked.

# Healthful Snack and Water Break (20 min)

# Activity 2. Tour of the Garden and Intro to Working

Once you all arrive begin by giving the learners a tour of the garden site. You can break them up into smaller groups depending on the number of facilitators you have available to lead the tours and to answer questions.

The tour should take the learners through the garden to show them different components of a garden. This tour should also help the learners understand using the paths and walkways around the garden beds, to preserve plants. Explain to the learners



that when walking through the garden it is always important to watch where you step. Say, a garden is a community, just like yours, every part of it plays an important role.

This will also be the first day that learners work in a garden with the program. Depending on what work is most needed, you can change activities or focus on some more than others. Below are some important elements to include in introducing learners to working in a garden.

# Mulch

Explain to the learners that pathways can be marked by spreading mulch which helps us know where to walk and also help keep grass and weeds from growing high by blocking out the sun. Explain that mulch can made up of biodegradable material, meaning any material that decomposes or dissolves in water over time. For example, many people mulch with wood chips mixed with dried leaves. Say that we may also use mulch in our garden beds to make the soil richer and healthier over time. How does it do that? The sun is hot and powerful and while we are grateful for the sun, it is important that we protect the microorganisms and healthy bacteria that live in the soil from the hot sun. Just like when we are in the sun for a long time and get thirsty and hot, so does the soil if it is exposed to the sun. If the microorganisms and healthy bacteria get super hot and thirsty they'll become weaker which will make the soil weaker and less healthy. So mulching not only helps mark the path but it also keeps moisture in the soil and prevents the soil from becoming tired. Mulching can also prevent tall grasses and weeds from growing by blocking out the sun. Those weeds and grasses will remain close to the ground and decompose in the topsoil, providing more energy and strength. Rather than digging up the soil and disrupting the microorganisms and healthy bacteria that live in the top part of the soil, we cover them with a blanket of mulch so that they can continue to provide essential nourishment to the plants.

# Transplanting

You can start this part of the exercise by presenting a garden bed of seedlings or you can have seedlings prepared and ready for transplant ahead of time. Explain to the learners that sometimes plants need to be started out in a small container or garden bed for special care. Just like us, when plants are very young, they are fragile and require a lot of care and supervision. Once they are strong enough we need to give them more space to grow bigger, so we transplant the little seedlings to a new wider space. Explain to the learners that it is important to be mindful of every part of the plant when we are transplanting, particularly the roots and the stem. We want to protect the important root system and the stem because that is how the plant pulls up nutrients and water from the soil. You can describe the stem as a straw, sucking up water (depending on the age group, learners may be aware of this process and you can go into more detail regarding *capillary action*).



# Harvesting

Instruct the learners in harvesting whatever is ready for harvest in your garden on the day of the visit. Remind learners to be gentle with the plants, because they give us food. Show learners an example of the ready to harvest fruit or vegetable and instruct them on how to gently harvest them. Provide learners with buckets or baskets to hold the produce harvested or instruct them on where to place the harvested items. You can revisit the plant biology lesson from Session 3. Ask learners about which parts of the plant they are harvesting for consumption.

If you are planning to prepare the bounty harvested, work with the learners to clean the produce in preparation for eating.

# Activity 3. Building a Cooking Fire and Cooking Demo

Safety: At any age, safety is lesson No. 1. Explain to the learners that it is important to be aware of where they are standing and where their clothes are hanging. If they are standing near the fire, they must make sure that all loose clothing is tucked in. Tell them that the ground itself is important, too. Have them help you away rake any leaves and branches, which stray cinders could ignite within three to four feet of the fire pit.

Explain to students that they should stand 3 to 4 feet away from the fire at all times, unless they are approach it to cook. Always make sure to have a bucket of water nearby.

Gather Wood: Once the rules have been laid out, you can have the learners search the area for dry branches. Tell the students that they can test pieces by breaking off a small bit and listening for a crisp snap. That means they are dry. Explain that they should be looking for three types of fallen branches: *"tinder,"* tiny pieces as skinny as toothpicks and 3 to 8 inches long; *"kindling,"* about the width of a pencil and also 3 to 8 inches in length; and *"fuel,"* as thick as a wrist and roughly a foot long. Skip using lighter fluid or even newspaper, as it isn't found in nature and risks flying away too easily.

Build a Frame: Try an "A-frame" method with these beginners. Take two pieces of "fuel" and lay them flat on the ground, into a "V." Place a third piece of "fuel" across the other two, to form a capital "A." This "crossbar" should face *toward* the wind. Next, arrange kindling in the top portion of the "A": Each piece should lean diagonally



from the ground up onto the crossbar. In the same fashion, lean the tinder on top of the kindling.

Ignite: If learners are 11 or older, you can attempt having a learner strike the match. Avoid small flimsy matchbooks and opt for long sturdy wooden. Make sure to instruct the learners to always strike AWAY from their bodies. Once the match lights, hold it underneath the leaning kindling until it catches and then let it drop. Remember to make sure that whomever lights the fire has NO HANGING or LOOSE CLOTHING! Use your own judgment when determining how to prepare this fire.

Tending to the blaze: Make sure to identify a "monitoring stick." A hardy 3- to 4-foot long branch used to push in branches and twigs that fall from the main flame. Tell the learners to keep an eye on any red-glowing flyaway embers. They will often "die" on their own, but might need a quick shoe stomp. Explain that when you see the fire dwindling, you can slowly feed in additional fuel – close to the ground and at a safe, arm's length distance – until the ends catch fire.

Cooking over the flame: If you have harvested something from the garden that day, consider cooking this item over the fire. Early harvest onions are great for grilling, as are zucchini and peppers. If you have harvested fruit, consider making fruit turnovers to cook over the flame!

Extinguishing: Once you have all completed eating as a group, gather back around the fire and explain to learners that extinguishing your fire is one of the most important parts of building and cooking over a fire! Ask them how they think we will extinguish the fire. Many will probably suggest throwing water on it. Explain that throwing a big bucket of water will create a LOT of smoke. Instead, explain that you should flatten the fire as much as possible with the monitoring stick. You can have some of the learners try this. Then you will carefully pour on water until you feel no heat when hovering your hand about an inch above the coals.

# Session 4. Farmers' Market Field Trip

**Objective 1:** Expose Learners to local food sales in a collective community model and impart that we all have skills and knowledge that be sold to benefit the community.

#### By the end of this session learners will be able to:

- (1) Name two kinds of produce that grow locally that they saw at the market;
- (2) Identify a "transformed" plant product that they saw at the market;
- (3) Select and purchase something from a vendor at the farmers' market.

Materials: Farmers' market tokens - \$5 for each learner

**Overview:** This session is focused on a field trip to a local farmers' market. Learners will be introduced to the concept of a farmers' market and given a tour. Learners will then break up into groups with an adult for each group. They will then be given farmers' market tokens to use while exploring the farmers' market. They will have the opportunity to walk around and ask questions to vendors about the items that they are selling. They will use their token to make purchases based on their own preferences. Following the field trip, learners will be led through a discussion about what they saw and about some ideas they might have about what they could sell if they had a market in their community.

#### Before You Begin:

1. Coordinate with a local Farmers' Market: This session is centered on a field trip to a local farmers' market. Contact a market coordinator in your area to see about tours. Another idea is to use your grower network and have a one of the farmers give a tour to the learners. Ask coordinators if there are any promotions that provide first-time visitors with coupons or tokens. If there is no promotion, make sure to write about \$3-\$5 per student into your budget, as this is a great opportunity for learners to exercise personal preference in selecting an item of their choice to purchase while exploring the market.



Session 4 Procedure:

### Daily Opener (Procedure found on Pages 8-9)

# Healthful Snack and Water Break (20 min)

# Activity 1. On the Road to the Market (time varies)

Understanding orientation and direction is an important aspect of building the picture of the food environment for our learners. Every field trip in this guide should include an exercise on the bus, where learners pay attention to the environments through which they are driving along the way. Explain to learners that it is important to know where we are, in case we get lost or need to tell our parents how to get to a place that we visited. Explain that this is very simple to achieve, if you just read the signs as you go and pay attention to what direction you are driving. Depending on the types of route, you may need to explain highway signs and exits. Have learners build the directions verbally together along the way by checking in with them on each step. Say: "What road did we just turn off of?" " Which direction did we turn? What road are we one now? Ok, so we took \_\_\_\_\_\_ and turned \_\_\_\_\_\_ and now we are going North, South, East or West? Once you have arrived, have them repeat these directions back to you and see how much they remember. Review this again with them while driving back from the farmers' market at the end of the session.

# Activity 2. Farmers' Market Tour (25 min)

Have the market coordinator or a farmer greet the learners and introduce them to the market. We want to express that the farmers' market is an example of a group of people taking action from within a community to provide goods and services to the people in their community. Have them explain that every person selling in this market has a skill that produces a good that can be sold (give some examples). You can also introduce learners to the idea of plant transformation. Explain that you have all seen plants growing in the garden, and some are food like tomatoes and green beans and others can be used to make soaps, jams, ice cream, pies, medicine, etc...

# Activity 3. Farmers' Market Scavenger Hunt and Exploration! (25 min)



Break the learners into groups for the scavenger hunt and exploration of the market. Tell learners that they will be given time to walk around to the different vendors to ask them about the items that they are selling. Remind them that they should greet the vendors when approaching the table and introduce themselves. Encourage the learners to ask questions and to visit multiple stands before deciding what to buy with their token. Challenge them to buy something that they have never tried before or never seen before.

# Activity 4. Farmers' Market Debrief on the Bus (time varies)

Have the students present to the group what they purchased and ask them who sold it to them and some other information that they gathered from the vendor. After the learners share what they bought with the group, ask them about some of the other surprising things they saw while exploring the market.



# Session 5. The Journey Our Food Takes

**Objective 1:** Introduce learners to the concept of "far away" foods versus "locally grown" and discuss the pros and cons and the external costs found in the supply chain.

#### By the end of this session learners will be able to:

- (1) name a common food found in the grocery store that comes from another country
- (2) sing the chorus of "Brown Rice and Broccoli"
- (3) name one externalized cost in the food supply chain

Materials:

**Overview:** This session is all about considering the origins of our food and the journey it takes to the market or grocery store. Following the daily opener, the group will circle up to share a selection of fruits. After self-selecting their fruits, the group will discuss where some of these fruits grow and how they got here to this community! Then learners will watch two music videos. The first is about popular processed snack food and the second is a response to the first video made by some high school students about healthy eating.

# <u>Before You Begin:</u>

#### 1. Select and Prepare Fruit

This session involves an opportunity for learners to try different cut up fruit. You will want to have about 4-6 options for them to choose from. Consider having dried fruits as well (e.g. dates, apricots). Cut up the fruit into manageable slices or chunks ahead of time and put them into serving bowls. Try to select a variety of fruits that come from different places, both local/seasonal and imported fruits to foster discussion.

# 2. Search and Find Music Videos



You will watch two videos during this session, both of which are available on YouTube. You may want to have them already loaded and ready on your device before the session. Links are below:

### VIDEO LINK !!!

"Hot Cheetos and Takis" by Y.N. RichKids (5:03) -- https://youtu.be/7YLy4j8EZIk

#### VIDEO LINK !!!

**"Brown Rice and Broccoli"** by DJ Cavem & Going Green Living Bling (4:31) -- <u>https://youtu.be/MO3zE2XqEUo</u>

# Session 5 Procedure:

Daily Opener (Procedure found on Pages 8-9)

Healthful Snack and Water Break (20 min)

# Activity 1. Free-Selection Fruit Tasting and Food Journey Discussion

During this activity, learners will have full choice to select from a variety of fruits. Gather the group in a circle and tell them that you will be passing around different bowls of fruit. Introduce what the fruits are. Then tell them that they should take whichever ones they like and only the amount that they need. Say, if you've never tried it before and you want to, take a small piece to see if you like it first. It is alright if there is something that you don't like, just don't select it. Once the learners all have the fruits and are eating them, begin discussion about where the fruits came from. Have the learners identify fruits that grow locally. Ask them how they know that they grow here. Ask the learners, which of the fruits in this bunch are from somewhere else? Have them guess where the fruit came from and how it got here. Talk to them about what the process might be like for fruit coming such a long way. End the session by asking learners what some of the pros and some of the cons of eating local fruits and "far away" fruits are.

Activity 2. Music Videos and Discussion (30 min)



Gather the learners around a computer screen or in front of a TV/projector, depending on what is available. Ask the learners if they have ever heard of Hot Cheetos? Ask them if they like Hot Cheetos? Say "what about Takis"? Give the learners some time to answer. Now ask them if they know what Hot Cheetos or Takis are made from? Wait for some different answers from the group. Now explain to them that you want to show them a video of some kids singing about these snack foods.

Show the "Hot Cheetos and Takis" video below.

# VIDEO LINK !!!

**"Hot Cheetos and Takis"** by Y.N. RichKids (5:03) -- <u>https://youtu.be/7YLy4j8EZIk</u>

After the video is complete, tell them that you have a different video now, made by some older kids who heard the Hot Cheetos and Takis song and said they would rather make a video about food they like to eat that makes them feel good. Ask them to look closely at the scenery and see if they recognize anything familiar.

# VIDEO LINK !!!

**"Brown Rice and Broccoli"** by DJ Cavem & Going Green Living Bling (4:31) -- <u>https://youtu.be/MO3zE2XqEUo</u>

While the video is playing, ask them what the chorus is saying. Then ask them who has eaten brown rice before? What did is taste like/look like? Now ask the group about broccoli. Say, who has had broccoli before? What is it like? Wait for some responses from the group. Once the video is over, ask them why they think the second group of students made a video about brown rice and broccoli? Ask them what the song was about? Ask them if any of them have ever heard the Hot Cheetos and Takis song before today? What about the Brown Rice and Broccoli song? Show them that the Takis song has over 10 million views on YouTube and the Broccoli one has only about 10,000! Why do you think one got so much attention over the other? To end the activity, ask them if they feel like they would be able to develop a song, story, or poem to spread a message about something like eating good food?



# Session 6. Finding Our Own Rhythm

**Objective 1:** Have learners contribute to a team effort to build music, not just noise.

By the end of this session learners will be able to:

(1) Develop a unique rhythm for one section of the drums;

(2) Follow along with drumming instructions as a part of a group;

(3) Identify the names of the drums that they are playing and where the drumming tradition originated.

Materials: drums/noisemakers, chairs or stools, if necessary.



**Overview:** This lesson will take place in the garden. Begin with the daily opener as usual and will then move into the drum circle following snack. Learners will have an opportunity to create their own rhythms.

# Before You Begin

<u>To Do List:</u>

# 1. Invite a Drum Circle Facilitator:

This session focuses on the importance of story telling and finding voice in all forms: music, art, poetry, etc. We suggest identifying local artists, drummer or storytellers to invite as guests. These artists may practice professionally or recreationally; trust your judgment on who will best connect with the learners in your group.

This may require significant planning ahead of time, to accommodate schedules. The blindfolded drummer stalk and the drum circle can be enhanced by using a professional drummer, but is not a requirement to accomplish the session. You or another facilitator can use a noisemaker or drum to provide the rhythms for the learners to follow as long as the noise carries far enough. This may be important to test out before doing the activity.

If you decide that you would like to invite a local musician, drummer or music teacher, to facilitate the drum stalk and drum circle activities, you might consider searching for drum circle facilitator networks in your community. You can search on the *Drum Circle Facilitator Guild* website at <u>dcfg.net</u>. If you or a colleague is planning to lead the drum circle activity for the first time, search "drum circle facilitation" on YouTube for some great examples to get started!

The drum circle activity can be fun with actual drums and noisemakers, but can also be accomplished with no instruments, by selecting rhythms that can be created by just the body (ex: clapping, leg slapping, vocal rhythms). If you would prefer actual noisemakers but don't have these available, you can create them using bottles filled with different beads, coins, seeds, etc... Look online for some easy DIY instructions for homemade noisemakers.

#### Session 6 Procedure:

#### Daily Opener (Procedure found on Pages 8-9)

#### Healthful Snack and Water Break (20 min)

# Activity 1. Telling Your Story through Rhythm<sup>68</sup> (45 min)

Form a circle with the learners. Let the learners know that they will each be given a drum or noisemaker (bell, tambourine, shaker, etc...) Tell them that there will be a time to play and a time to stop, and when we're stopped it is important that they listen and are ready to follow instructions. Establish that if someone is playing when we are stopped, they will be ask to leave the circle.

<sup>&</sup>lt;sup>68</sup> Adapted from: <u>http://www.allthingsmusical.com/public/Drum\_Circle\_Ideas\_for\_the\_Music\_Classroom.cfm</u>



If you have different styles of drums or noisemakers, introduce each of them by name and describe from what they are made. For example if you are using big wooden drums, have the learners guess what the materials are. You are in the forest, so you could suggest that the very material from which they are made surrounds us.

It is extremely important to establish a **STOP CUE**. This needs to be a big and definitive movement or a distinct rhythm that indicates the end. Something totally recognizable to all participants and something that cannot go unnoticed. The **STOP CUE** allows you to refrain from talking over the drumming, which will only lead to frustration and sore vocal chords. Once you have established the **STOP CUE** with them, for example a swinging your arms out to the side in one swift motion, kind of like an umpire making a call that the player is "safe," OR a distinct rhythm that will not get lost in the other sounds.

During this activity, you will start the learners out with a simple rhythm that they can follow. Once everyone is playing in unison, STOP. Keep doing this until everyone is comfortable. Maybe try another rhythm before moving on. Now have all the learners play the same rhythm and play your own improvisation overtop of their rhythm. If this doesn't work, go back to playing the rhythms in unison. Now instruct some of the learners through a complimentary rhythm. Once they are comfortable, sound out or play the original rhythm for the other group to follow. Then have the learners all start at the same time, playing the two complimentary rhythms. If you are a skilled drummer, you can even play a third solo rhythm over top. If you identify that a particular section is struggling, help learners by reminding them with their rhythms on your own drum. Now try your STOP CUE. If learners don't stop in unison, keep trying until everyone does.

Now have someone in the group volunteer to make up his/her own simple rhythm. Once he/she has played it have the person directly to their left play it. Now say, Ok, we are all going to try and play (insert learner's name) rhythm. Have the learners play in unison. You can have other learners try their own rhythm until the session time is over. Or you or the drum instructor can continue to teach the learners new rhythms.



# Session 7. Inside the Grocery Store

**Objective 1:** Expose learners to a more in depth look at a grocery store by meeting employees and to have them continue to consider the food system around them

By the end of this session learners will be able to:

(1) Generally map the grocery store;

- (2) name one word that stuck out to them on a food package at their eye level;
- (3) explain something new that they saw or learned while touring the grocery strore

#### Materials:



**Overview:** Following daily opener and snack, the learners will take a field trip to a local grocery store. Before beginning the field trip, learners will have a brief discussion about colors, words, and characters found on their favorite packaged foods. This conversation can either happen during the bus ride to the grocery store, or before departure. Learners will be given a set of assignments for observing while taking the store tour. Following the grocery store visit, learners will have an opportunity to reflect of what they saw and experienced while in the grocery store.

# Before You Begin:

 Coordinate with a local Grocery Store: This session is centered on a grocery store field trip. Consideration must be made for what store to visit and who may be available at the store to give a tour and provide information. Selecting a grocery store in or around the community will be most effective. Contact the store you intend to tour ahead of time and ask if student groups are accepted for tours. Explain to the store representative the objectives of your visit.



Session 7 Procedure:

Daily Opener (Procedure found on Pages 8-9)

Healthful Snack and Water Break (20 min)

Activity 1. Grocery Store Tour (45 min) Ask learners about some of their favorite food brands (cereal is usually a good place to start). Now ask learners to recall the color of the packaging, the words on the box, or a character that represents that brand. Continue facilitating this discussion and move into asking about why they like these brands. This conversation will lead into the assignment students will have for



observation during the store tour. Once arriving at the grocery store, make sure to prepare learners for what they will be doing inside. Lay some ground rules for behavior inside of the store. Explain that the store has agreed to have you all as their honored guests and that we need to act with respect and pay attention to ourselves throughout the tour. Explain that there will be a LOT of stimulation when you get inside – smells, colors, sounds – We want you to experience these all, but we also need you to pay attention to what you are experiencing. When we are inside, pay attention to how the food is displayed, what foods are at your eye-level, versus foods that are above or below your eye-level. Look at words on the different food packaging and consider why they chose those words.

If you are receiving a formal tour, explain that they should also pay attention to the tour guide because they will be asked to remember what they saw and how the store was set up after the tour. If there is no one available to provide a tour, then have the students break into groups led by facilitators and go through each section with the learners. Observe all of the elements in the store.

# Activity 2. Store Tour Reflection (20 min)

Following the store tour, ask learners to identify some of the brands they saw in the store. Ask them if they noticed where the dairy, cereal, meat, produce, etc... sections were located in the store. Ask the learners to reflect on why some of these sections were located in that area. Now probe and ask learners to identify some foods that they noticed at their own eye level, and foods they noticed below or above. Ask them why they think the foods might be placed at these levels. Tell learners that this conversation will continue tomorrow, so ask them to continue thinking about all of the things they observed while at the grocery store to share during the next session.



# Session 8. Tricky Techniques

**Objective 1:** Explore how food companies use marketing techniques on food packaging to get us to buy their products.

By the end of this session learners will be able to:

(1) recognize that food marketing influences choices;

- (2) identify food marketing techniques used on packaging (words, colors, images);
- (3) identify one product marketed toward their age group/demographic

Materials: flipchart paper, markers, food packaging



**Overview:** Following the daily opener, learners will map out the grocery store that they visited during the previous session. Learners will then discuss the different sections of the grocery store and why it might be designed in this way. Next learners will be examining and discussing food packaging. They will be introduced to the "tricky techniques" used by food companies to influence purchasing. You will then revisit their trip to the grocery store and ask them to think about the different "tricky techniques" that they identified during the tour.

# Before You Begin:

- Collect recognizable food packages for use in the "Tricky Techniques" activity. Include a packaged item with a celebrity, a package with key phrasing, like "natural" or "fresh," and some other food packaging with recognizable branding.
- In addition to the tour, marketing techniques will be discussed and best facilitated with visual aids. This can be food packages or images of food packages printed from the Internet. Try incorporating favorite junk foods that



learners have mentioned in previous sessions as well as "green washed" foods – or packaged foods that have "healthy" marketing to attract customers. We want to point out that foods of all kinds are using these techniques to sell themselves, not just junk foods.

Session 8 Procedure:

Daily Opener (Procedure found on Pages 8-9)

Healthful Snack and Water Break (20 min)

# Activity 1. Mapping Activity (30 min)

Work with the students to map out the grocery store from the previous session. Have them recall where each section was located and move into a discussion about why that may be.

# Activity 2. Tricky Techniques (45 min)

Show the learners a package with a massively recognizable brand. Ask to the group: What is this? Build off of answers. How do you recognize this?

Now introduce a package with a well-known celebrity featured. Ask the learners who is featured on the package. Ask them, why they think that this company chose to feature this celebrity on their product?

Now hold up a package with some key words that are trying to convey health (ex: "Natural Flavors", "Fresh", etc...) Ask them about what words they see prominently featured on the package. Have them define what these words mean, or what these words make them think about.

Once learners have identified that these are strategies for selling food, begin discussion of the different techniques used. Explain that billions of dollars are spent on designing the outside of food and beverage packages. Each word, color, and image is there to convince us to buy the food.

Explain that there are five "tricky techniques" that food companies use to sell their



products.

1. Celebrities or recognizable characters: Familiar faces like celebrities, cartoon characters, TV or movie characters are often prominently placed on food packages. These celebrities get paid a lot of money to be featured on these products, though they may not actually consume them regularly or at all.

**2.** *Claims:* These statements will tell you all about the contents of a product (e.g. contains fiber, fat free, non GMO). These statements also often state health benefits (e.g., heart healthy, lowers cholesterol). Claims can also describe the quality of the product, making one believe that a food is "tasty", "popular", and "naturally made". The idea that a food is "naturally made" can be very appealing, but this statement can be made by anyone, without any regulation to confirm that this is truly the case.

**3.** Incentives or Promotions: Many food packages offer prizes, contests, points, clubs and other incentives to entice you to buy the product over and over; for example: a game on a box of cereal or a chance to win an Xbox.

**4.** *Branding:* Companies spend a lot of time and money selecting a logo for their brand so that it is quickly and easily identifiable.

**5. Design:** These features include color, packaging types, and certain images. This feeds into the above-mentioned branding. So for example, what color is Coca-Cola most associated with?

Now ask learners which techniques they recognized on the packages that we already looked at. What other "tricky technique" examples can they think of?



# Session 9. Healthy Eating On Our Own: Part I.

**Objective 1:** Have learners show off some of their new skills and exhibit the ability to troubleshoot food decision-making

By the end of this session learners will be able to:

- (1) identify something new to try during school lunch;
- (2) state the different parts of the plant that we eat;
- (3) assist with snack preparation

Materials: ingredients for snack preparation, utensils for snack preparation

**Overview:** This session is all about self-sufficiency. Learners will start by assembling a snack. While eating snack, ball of questions will be passed around to assess some perceptions and reactions to the program as well as to assess some uptake of knowledge. Learners will then go to work in the garden, by now familiar with tasks. Plant biology should also be woven into snack time and work time throughout the session. During time working in the garden, an introduction to the art of Capoeira and its link to agriculture will be given and learners will practice moves while continuing their tasks in the garden. To end the session, a discussion will be held about lunch at their school and ways that they can improve their lunchroom experiences.

# Before You Begin:

 For this activity, you will need to find the local public school district lunch menu online and print out copies for each learner. These menus can usually be found on the public school website. For Atlanta Public School, go to: <u>http://atlantapublicschoolsnutrition.us/?page=menus -</u> <u>atlantapublicschoolsnutrition.us</u>

# Session 9 Procedure:

#### Daily Opener (Procedure found on Pages 8-9)

#### Healthful Snack and Water Break (20 min)

#### Activity 1. Produce Lab

Consider inviting back the chef from Week 1 or invite another chef to come help prepare snack with the learners. You may choose snack based on what is seasonally available, available in the garden, or simply based on preference exhibited by learners throughout the program. Something simple, inexpensive, and commonly available is preferred. During snack preparation, discuss the parts of the plants that are being consumed.

#### Activity 2. School Lunch Activity

Start this activity by asking learners about their school lunches. Ask the learners what their favorite school lunch is? Wait for a few answers and then ask what parts of their lunch they always throw away? Once you have listened to some of their responses to these questions say that you have a calendar of the food being served at their school for the week (you can pass out copies of the calendar or lead the group verbally). Examine with the learners the lunch served on the previous day. Ask them what they ate from this lunch? Now ask the learners why they didn't choose to eat other items. Once you have discussed the previous days lunch, have the learners look at the coming days of the lunch menu. Ask them to identify at least one thing from each day over the next three days on the menu that they would choose to eat.

Note: If learners say that the menu is wrong, probe further. How is it different? If learners continue to state that the menu is different ask them how they might be able to change this so that the menu is as listed.



# Session 10. Eagles in the Garden

**Objective 1:** Have learners practice self-awareness in the garden and have fun using new gardening skills

By the end of this session learners will be able to:

(1) explain the instructions for playing "Eagle Eye";

(2) identify three plants in the garden and what parts they can eat or use;

(3) be able to describe the garden in detail to someone else



**Overview:** This session is all about self-awareness and having fun in the garden. Learners will finish the daily opener and move into a garden tour activity. They will use their imagination to "call" a friend or relative to explain the garden as they tour through. Once they finish the tour, learners will discuss what they told their phone friend, while eating healthy snack as a group. Next, learners will be taught about their "eagle eye." Learners will then play a couple of rounds of the game before moving into gardening activities. Eagle eye can be played throughout the session, whenever an adult feels inclined.

# <u>Before You Begin:</u>

1. Prepare the garden for work with the learners. Procure any materials or prepare any beds, as needed.

Session 10 Procedure:

Daily Opener (Procedure found on Pages 8-9)

Activity 1. Phone Call from the Garden Tour

Learners arrived at Herring Rd. Urban Farm and got into a circle. Learners were told that today is all about self-awareness and experiencing all of the stimulations in the garden: sight, sound, touch...Learners were asked how they What do you hear when you are outside? "Birds", "bees", "bugs". What do you see when you are inside? -"Television", "phone", "outside the window"! What do you see when you look out the window from inside of your house? "weather" - so you can maybe decide what the weather is like outside. If you see that it is raining, what might you put on? "Rainboots" - Evan; "long pants" - Eva; "someone who is coming over" - and What if you get a call on your cellphone that says it's calling from Texas but that person says they are on their way and will be there in 5 minutes? Do you believe that person? "Yes!" Why? "No!" -"because sometimes people don't show up when they say that they will" – "like my dad" – Evan, age 8. Ok, so we are going to take a tour of the garden and take in everything that we are seeing, hearing, feeling, smelling and we are going to remain self-aware by telling someone about it, so we are all going to grab phones. Who brought their phone today? (All adults raise hands) - ok, who here that does not pay a phone bill brought their phone today – no one, good so we are going to grab phones - points to flowers - and then decide who we are going to call. Eugene goes around the circle and asks each learner who he/she is going to call on their flower phone. Bee, butterfly, mom, dad, sister, aunt – are all mentioned. Now we are going to take a tour of the garden and I want you to be telling the person or being on the other line exactly what it is that you are experiencing. I'm also going to be telling you some information as we tour around, so you can listen to me while also sharing with the person on the other line.

# Healthful Snack and Water Break (20 min)

# Activity 2. Eagle Eye

Learners are shown their "eagle vision" by holding two fingers straight out in front of their faces. Then extending arms out until they can no longer see their fingers without moving their heads. They were then told to pull their arms in just enough so that they can barely see their fingers. Eugene said – "this is your actual seeing ability. When you are looking around, it is not just the stuff directly in front of you that you can see. You are taking in everything in that span. Now put your two fingers in front of your face again and this time pull them apart vertically. Lift and lower them as far as you can without moving your head until you can't see them anymore. Now pull them back in just enough that you can see them at the edge of your vision. This is also within your scope of vision will you are looking. Now, do you think you can use that whole span while you are in the garden and take in more than just what you see directly in front of you? (Some learners expressed doubt). Well how does an eagle seek out his prey?

Does he run around chasing after it? Or does he move around trying to see it? (No) He perches on his branch and waits patiently in one spot assessing the situation before phwoof! He snatches it up! And then what does he do? (Drops it!) Right, he drops it from waaaaay up in the sky! So we are going to use our eagle eyes today. At some point during our work in the garden today, an adult may come up to you and whisper "eagle eye" in your ear. At which time, you will cover your eyes and yell "eagle eye"

and count to 20. While you count to 20 everyone will disperse and run to somewhere in the garden to hide so that you can't see them. After you count to 20, you'll open your eyes, but you won't move your head or body. You'll use your "eagle eye" to spot as many people as you can. And as you see them, you will yell out their names.

# Activity 3. Garden Work

Look at the different ways plants are used in society  $\rightarrow$  food, clothing and shelter all comes from agriculture. Ask the learners to recall to the previous session and identify different parts of the plant that we eat. You can have learners harvest, transplant, or mulch during this session.





# Session 11. Healthy Eating On Our Own: Part II.

**Objective 1:** Have learners show off some of their new skills and exhibit the ability to troubleshoot food decision-making

By the end of this session learners will be able to:

- (1) identify something new to try during school lunch;
- (2) make independent choices about what they want to prepare;
- (3) help prepare, serve, and clean up during snack activities

Materials: ingredients for snack preparation, utensils for snack preparation

**Overview:** This session is all about self-sufficiency. Learners will start by assembling a snack. While eating snack, ball of questions will be passed around to assess some perceptions and reactions to the program as well as to assess some uptake of knowledge. To end the session, a discussion will be held about lunch at their school and ways that they can improve their lunchroom experiences.

# Before You Begin:

1. This is another great opportunity to bring in a local chef(s)! Work with the guest chef beforehand to discuss possibilities for a snack that requires assembly and a lot of free-choice (e.g. tacos, granola, apple/nut butter with toppings)

Session 11 Procedure:

Daily Opener (Procedure found on Pages 8-9)

#### Activity 1. Snack Assembly

Consider inviting back the chef from Week 1 or invite another chef to come help prepare snack with the learners. You may choose snack based on what is seasonally

available, available in the garden, or simply based on preference exhibited by learners throughout the program. Something simple, inexpensive, and commonly available is preferred. This session is an opportunity for learners to continue to develop skills in food preparation and to exhibit the program's culture of service to others and to themselves. Have the chef start by discussing how he/she became a chef and what is required for continued development of his/her skill. Now review the ingredients offered for the snack and have a tasting session with learners of the raw ingredients. This is a great opportunity to discuss the different tastes with learners: bitter, sour, sweet, etc.. You can select learners to help prepare the food or you can break learners up into small groups with adult supervision, if the snack can be prepared with minimal tools or cutting. One by one, learners should have an opportunity to select the ingredients that they want for their snack. Pay attention to how many of your learners are revealing their "brave tongues" today!





# Session 12: Building Our Community

**Objective:** To have the children think critically about what composes a thriving community and to allow the children to exhibit the work they have done through the program to family and friends

# By the end of this session learners will be able to:

- (1) name what elements are necessary for a thriving community
- (2) explain and identify plants in the garden
- (3) serve invited guests during the community meal.

Materials: Flipchart paper, markers, projector/television



**Overview:** The initial activity for this session will begin with a discussion with an planner about the community that the learners live in. Next the learners will use the information from that discussion to create a community that incorporates all the things they deem necessary for a successful and thriving community. Then the learners will start prepping the garden for the tours they will later give to friends and family. After that, the learners will help build a fire and also help with the food preparation for the family dinner. When friends and family arrive, the students will give tours of the garden while simultaneously identifying plants and explaining what they have learned throughout the program. The session will end with the learners presenting their community plans with friends and family while everyone eats dinner.

# Before You Begin:

#### <u>To Do List:</u>

 Community Planner: The focus of this session is around the idea of a "thriving community". We suggest identifying a community planner to invite as a guest for this session. This person may be a professional or a student in the field; find someone who knows the material but can also build a connection with the learners. Once this person has been contacted, ask what materials may be necessary for the activity in order to successfully plan ahead of time for the learners.

- 2. Gather activity materials: The community planner may request certain materials for the activity so those need to be procured ahead of time. Also, things such as seating, food prep stations and tents need to be ordered ahead of time for the dinnertime portion of this session. Invites need to be sent out to family and friends and lastly, paper materials are needed in order to print the superlatives and the certificates of completion for each child.
- 3. Invite Garden Guests: This final session of the program is an opportunity for learners to show off their hard work and newly acquired knowledge. If family members are interested in attending, then makes sure to send home invitations with learners the week or two prior to the final session. If parents and families are largely unavailable in your community, then consider other guests to invite. If you have a relationship with a retirement community, consider inviting members of the elderly community for this final celebration.

# Session 12 Procedure:

#### Daily Opener (Procedure found on Pages 8-9)

#### Activity 1. Community Planning Activity Introduction (20 min)

Open the activity with a discussion about their community. Ask them questions similar to the following: What are some things in your community that you like? What are some problems that you see in your community? How would you improve your community? How could you be involved in those improvements?

The community planner would help facilitate or lead this discussion. Write down the ideas that the learners mention during this discussion to help them come up with ideas during the next activity.



# Activity 2. Community Planning Activity (30 min)

Have the students look at maps and other design drafts of environments (e.g. map of a mall, school). Ask them to identify the different elements and how they have been represented. Now ask the students to design a block in their neighborhood so that it has all of the things that they think it requires to thrive. Provide 5 required elements that must be incorporated into their design:

- (1) Store that sells food
- (2) Green space
- (3) Space for elders
- (4) Job training facility
- (5) Space for youth.

Also, require them to identify 3 modes of transportation that can be used in their neighborhood and who can use each. Now ask them to make sure that all of these elements are connected by way of transportation. Have the children keep in mind everything that they discussed during the prior activity and remind them to add anything else that they think is necessary for a community to thrive.

#### Resources: sustainablecitiescollective.com, planning.org

# Activity 3. Garden Prep/Mock Tour with Students (15 min)

Work with learners to prepare the garden so that it is ready for the visitors. This may include moving tools, watering plants, putting materials back where they belong, etc. Then, have the students give a mock tour of the garden so they can be more at ease with the idea of showing the garden to our guests.

# Activity 4. Serving the Food (15 min)

Break the students up into the following groups beforehand and go over the duties of each assigned group. These are all skills that have been taught throughout the program as you worked with learners.

- (1) Showing guests to the restroom for hand washing
- (2) Plating meal
- (3) Serving to guests
- (4) Setting up the dining space
- (5) Clearing plates

# Activity 5. Communal Meal! (30 min)
The learners will serve dinner to the guests and explain what is in the meal. Go over ingredients with them throughout meal preparation. Once guests have been served, everyone can eat! While everyone eats, have a few brave learners share their community plans with the group.



### Activity 7. Program Superlatives and Close of Program (20 min)

Following dinner, present superlatives and give the winners a certificate so they will always remember what they achieved during this program. These superlatives can be anything you decide but here are some ideas:

- Most Improved
- Best Gardener
- Most Likely to Have a Farm
- Best Listener
- Resident Artist
- Most Enthusiasm

Consider presenting a slideshow or video of pictures from the program! Since taking pictures and videos was part of your monitoring and evaluation strategy, you should offer this information back to the learners as a treat! You could use the "Brown Rice and Broccoli" song as the background music!



Close the evening by thanking everyone for participating in an amazing program! Food is Love!



APPENDIX



# APPENDIX A.

New Power Generation After School Program Session Data Worksheet				
Session Date:				
Session start time:				
Session end time:				
Session location:				
Number of learners:				
Number of new learners:	Number of repeat learners:			
Number of adults present:				
Names of adults present:				

Food provided (list all ingredients):
Number of learners willing to try lunch:
Number of learners who ate at least half of snack serving:
Qualitative notes on learners' reaction to snack (both positive and negative):



Activity #1			
Activity name:			
Activity leader(s):			
Start Time:	End Time:		
Activity description:			
Evidence of engagement (learner reactions and quotes):			

Activity #2				
Activity name:				
Activity log day(a)				
Activity leader(s):				
Start Time:	End Time:			
Activity description:				
Evidence of engagement (learner react	ions and quotes):			



Activity #3				
Activity name:				
Activity leader(s):				
Start Time:	End Time:			
Activity description:				
Evidence of engagement (learner reacti	ons and quotes):			
Activity #4				
Activity leader(s):				
Start Time:	End Time:			
Activity description:	1			

Evidence of engagement (learner reactions and quotes):

Facilitator Reflection:



## APPENDIX A.

#### New Power Generation: End of Program Interview Guide for Learners I. Food Preferences

- 1. Have you tried any new foods during this program?
- 2. Is there a food that you liked best?
  - a. Why?
  - b. Was it something new?
- 3. Is there a food that you tried but didn't like it? Why didn't you like it?
  - a. Was it something new?
- 4. Is there anything that you thought you didn't like but tried it and it turned out that you did like it?
- 5. Where do you think the food that we gave you each day came from?
  - a. Who made the food?
- 6. If you could choose what snack we have tomorrow, of the snacks we have already had, which one would you choose?
- 7. What snack would you most like to know how to make?

#### II. Reception of Program and Activities

- 1. What is something new that you learned during this program?
- 2. What was your favorite place that we visited during this program? Why?
- 3. What is yoga? Why do we do yoga?

#### III. Local Food Recognition

- 1. Of these foods (show them or list to them 3-5 foods (e.g. mint, pineapple, beans, tomato, kiwi, rainbow chard, cherries), which ones do you know grow here in Georgia?
  - a. Why do you know that?



### APPENDIX A. New Power Generation: End of Program Interview Guide for Facilitators

- 1. What is your overall opinion of the after-school program?
- 2. What activities do you think the children were most receptive to?
  - a. Which activities do you think the children were not receptive to?i. Why do you think they were less receptive to these?
- 3. What do you think is the most important lessons from the program that learners took away?
- 4. What changes have you seen in the kids' attitudes or behaviors since the program?
- 5. If you could add any activities to the program, what would you add?
- 6. How would you improve the program?



# APPENDIX B. <u>Getting To Know You Bingo</u>69

Find someone who					
Has ever eaten a seed before	Has a hidden talent	Has ever built a fire	Has talked to a family member about a family recipe	Can name a vegetable that grows underground	
Can play an instrument	Has planted a tree before	Can name a fruit that grows on a tree	Can say hello in a language besides English	Has visited a farm before today	
Has a relative (parent, grandparent) from a different country	Can name an edible plant part	I, (write first name here) am a food fighter! FREE SPACE	Has been swimming in something other than a pool	Has acted in a play or skit	
Drank water today	Has been to a grocery store outside of this community	Knows how to cook their favorite meal	Knows how to make tea	Has created a painting/drawing for something else	
Has a pet	Knows what plant popcorn comes from	Has written a poem	Has been to the ocean	Has gone fishing	

<sup>&</sup>lt;sup>69</sup> Adapted from: *In The Defense of Food Curriculum*. Teachers College, Columbia University. 2015.

## APPENDIX B.

### THE SNAKE AND THE HOLY MAN<sup>70</sup>

Once there was a snake with a rather bad attitude. The small village near where the snake lived was very fearful of this snake. You see, this snake slithered through the grass, silently, seeking its victims, and without warning would strike and devour its prey. It was known to eat hens, dogs, and even big animals like cows. However, what was most upsetting to the villagers was that the snake was even eating their children.

The villagers wanted to be respectful towards all creatures but this snake had simply gone too far. They knew that something had to be done and they came together to get something done. The villagers gathered at the edge of the field, and with drumming and shouting, and sticks and stones, and with their minds made up started their search to find the snake and to kill it.

A holy man came upon this loud and angry crowd and asked, "What is this about?"

The villagers told him of the snake's evilness and how the snake was even eating their children. The holy man asked, "If I make this snake stop, and it no longer eats your children, and hunts your farm animals, will you spare the snake's life?"

The villagers argued among themselves. Some wanted vengeance and others were willing to let the holy man try. However, most of the villagers did not believe that the holy man would succeed and keep the snake from biting. However, reluctantly, they agreed to give the snake one chance.

The holy man entered the field and commanded the snake to come to him. And the power of the holy man caused the snake to crawl to the path and to the feet of the holy man.

"What issss it?" the snake hissed.

The holy man's words were simple: "Enough! There is no need for this. There is plenty of food without eating the villager's children or their animals."

<sup>&</sup>lt;sup>70</sup> Adapted from Andre Heuer and A.K. Ramanujan. Found at <u>http://www.andreheuer.com/articles/snake.html</u>



Now it was not so much what the holy man said but it was how he said it. There was a kindness and an authority in the holy man's voice. The snake knew the holy man's words to be true. The snake did not hiss a word but nodded in agreement and slithered away.

It was not long before the villagers discovered that the snake would not harm them. They were grateful that the snake no longer would bite. However, some of the villagers in their anger and hurt from what the snake had done and some in their meanness began to beat the snake with sticks and stones. Day after day the snake received more and more abuse until it could take no more and it hid underneath a large rock.

The snake hid underneath that rock, determined not to break its word to the holy man. However, the snake was very confused, and said to itself, "Why is this happening to me? I listened and followed the holy man's words." The snake was so fearful of leaving its hiding place it was soon dying from the villagers' beatings and the lack of food.

One day, the weakened snake heard the footsteps of the holy man and with every bit of strength crawled out to meet him on the path. The holy man, seeing how terribly beaten and sickly the snake looked, asked, "What has happened to you?"

The snake with great effort told the story of the beatings and torment that it received from the villagers and how for days it had hidden underneath a rock to protect itself.

The holy man stood silently shaking his head. His voice was low as he said, "Oh, foolish snake, I told you not to bite but I did not say anything about hissing."

And with this the snake understood and slithered away hissing.