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SOCIAL STUDIES | FRENCH | BIOLOGY | HUMANITIES | WORLD HISTORY
GEOGRAPHY | STATISTICS | PHYSICS | GEOMETRY



Improving Health and Learning Through a Bold New Approach to Food and Nutrition Education



Integrated
Food Project

A simple question:

“If you know more about food, will you make better choices in how you feed yourself, your family, your community?”

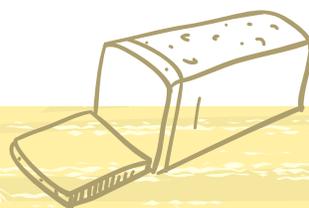
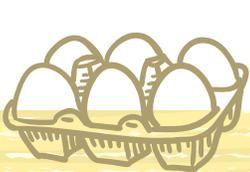
Some will say a complex answer is required, but the **Integrated Food Project (IFP)** responds with a simple and resounding “Yes!” The **IFP** was created on the belief that exposing children to food- and nutrition-related examples and lessons in the teaching of traditional academic subjects will not only stimulate students’ interests in those subjects, but will engage them in making healthy eating choices. These choices can affect their future well-being and the well-being of their family and community. The **IFP** is designed to increase students’ awareness and understanding of food, nutrition, and health outcomes related to individuals, communities, and the world. Operating primarily within the classroom, teachers integrate specialized content throughout the academic year into established kindergarten through 12th grade curricula.

Efforts to bring food, nutrition, and sustainability education into schools are widespread. Pioneers of the movement include renowned chef Alice Waters and her Edible Schoolyard project, and First Lady Michelle Obama’s *Let’s Move* campaign. Community organizations, non-profits, local, state, and national governments are all championing access to better foods and healthier choices for children. Initiatives often include school gardens, physical fitness, lesson plans, and school lunch programs. Understanding that a tightly woven network of such programs will be required to reverse the rising tide of childhood obesity in the U.S., the **Integrated Food Project** is developing a unique approach that will both support and strengthen this framework of food education to create change.



GOAL OF THE INTEGRATED FOOD PROJECT

Fully engage participants in the learning process so they gain a greater understanding of food and nutrition in their health and lives, choose a more healthful diet, and thus become healthier.



Idea to Implementation

Sponsored by the George Washington University (GW), the **Integrated Food Project** is a collaborative effort that began in 2011 between GW, D.C. Public School's School Without Walls (SWW), and Chef José Andrés' ThinkFoodGroup. Andrés, a renowned chef and innovative advocate of food education, proposed the creation of a curriculum that would influence students' attitudes and behaviors toward food by teaching them how food and nutrition have an impact on history, science, math, art, culture, and thus various aspects of their own daily lives.

A partnership was created through the initiative of Diane Robinson Knapp and GW's Urban Food Task Force, whose goal is to increase food- and nutrition-related health awareness within GW and the community as a whole. School Without Walls' principal Richard Trogisch joined Knapp and Andrés in enlisting the participation of faculty at both institutions in the development of a pilot curricular project called the **Integrated Food Project**. With guidance and input from faculty at GW's Graduate School of Education and Human Development and Milken Institute School of Public Health, teachers from the School Without Walls, a magnet public high school, incorporated food and nutrition as context and examples in lessons. Applying this food 'lens' to the otherwise typical lessons served as a means for improving students' understanding of the subject matter while creating interdisciplinary connections. Chef Andrés, who is also special advisor to the president of the George Washington University on food initiatives, and his ThinkFoodGroup provided consultation and local opportunities for students to interact with culinary community experts, experience unique field trips, and connect with an array of specialists. The overall goal of the Integrated Food Project was set forth, stating that participating students will be more fully engaged in the learning process; gain a greater understanding of food and nutrition in their health and lives; strive to choose a more healthful diet; and thus become healthier.

The **IFP** began with a handful of teachers leading classes in U.S. history, biology, health, humanities, and physics for roughly 150 students. Lesson planning commenced by asking a set of questions that teachers and students would aim to answer over the course of the class. Questions included "What is the role of food in society?" "How are foods we eat produced?"—broad essential questions that students would aim to answer through their learning across disciplines. Teachers sought to teach five food-related lessons in each course. Central to the goal of the **IFP** is that content should be unique from course to course yet complementary to the broader curriculum. Therefore a key component of the project is teachers and faculty sharing resources and meeting as a group to enhance collaboration as well as promote alignment of educational goals. Now, four years into the **IFP**, teacher and student participation has increased across all grade levels, and courses such as philosophy, AP human geography, French, math, and chemistry have been added.



Decidedly Different

In the immediate years leading to adulthood, students are exposed to food and nutrition topics typically only in conventional health and PE classes. The **IFP** partners identified the need for continued education in food and nutrition topics in the secondary schools and focused its efforts to create something distinctive. The **IFP** team and SWW teachers embarked into uncharted territory with this shift in approach to educating high school students about the food they eat. Having analyzed integrated food and nutrition concepts already active in schools, they noted that those programs generally focused on school gardens, farm to plate activities, environmental effects, and food safety. Most also target kindergarten to 8th grade students, leaving a gap in the high school years. The **IFP** team saw the critical need to bring an interdisciplinary approach to engaging emerging adults on food and nutrition issues. Just at a time when adolescents begin making more decisions for themselves on what they do, how they eat, and where they spend their time, food and nutrition education usually drops off. High school students who are often food shopping and cooking for themselves as well as other members of the family may begin to see food and nutrition as a chore and not as tools for discovery and self-advancement. A former SWW teacher participant noted that a classroom of often-hungry teens was happy and enthusiastic to discuss food. Lively discussions revealed to students that they did not have to be stymied by basic concepts of carbohydrates, fat, and protein when learning about

food and nutrition. Instead, the relevance of food surrounded and engaged students throughout their daily learning.

A primary objective and differentiating factor of the **IFP** is to have the lessons work seamlessly into a teacher's existing academic plan. It has to be easy. With the many challenges teachers face, food and nutrition topics need to fit comfortably into existing lessons. For a history teacher reviewing World War II, integrating information of food rations and the development of 'meals ready to eat' for soldiers in battle should not derail a teacher's agenda, or take students away from class. For students, **IFP** lessons should not be a pause in their classwork but instead another path to illustrate an idea. At the same time, the food-focused content stimulates a student's approach to how they examine the world and frame food within it.

Other exceptional elements of the **IFP** include its foundation in university academics and research, layered with national and international experiences and innovative ideas for food and nutrition studies offered by **IFP** partner José Andrés and his company ThinkFoodGroup. This unique collaboration enables teachers and students to incorporate a variety of culinary tactics into lessons, from cooking elements in physics equations, to recipes as math problems, or food access determining the path of conquering armies.



Measuring Up

Since the inception of the **Integrated Food Project** at School Without Walls in 2011, teacher and student participation has increased year over year. Beginning with five teachers, the **IFP** now counts 12 teachers as participants in the program. The original six academic classes have grown to 12 including algebra and statistics, affecting roughly 665 students in the 2014-2015 school year alone. Each teacher commits to five lesson modules per academic course. Some of those modules have included subjects such as "Urban Geography and Food Deserts," "Thomas Jefferson and the Influence of French Cuisine," and "UN Food Programmes and the Metrics of Food Distribution."

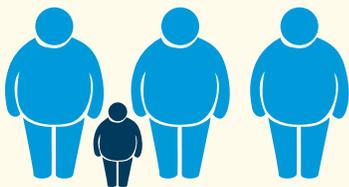
Along with growing interest in the program, analysis of student surveys indicate that many students are making better choices after participating in an **IFP** class, noting in particular a greater preference for water over soda. Other feedback highlights a change in attitude and behavior toward healthy foods, with increased consumption of water, fruits, and vegetables as well as a decrease in unhealthy habits of snacking on chips, candy, and soda.

A former SWW teaching participant observed "integrating rich food and nutrition content in all areas of a high school curriculum is not only feasible, but it also yields a group of students who are highly engaged in new and different ways. Students who actively participate in their health education as it relates to their academic studies may foster the opportunity to drive change."

Prevalence of obesity in the U.S. population:

17%
of youth

37%
of adults



Source: Centers for Disease Control and Prevention, National Center for Health Statistics, November 2015

Empty calories from added sugars and solid fats contribute to **40%** of daily calories for children and adolescents aged 2-18 years, affecting the overall quality of their diets. **Approximately half of these empty calories come from six sources: soda, fruit drinks, dairy desserts, grain desserts, pizza, and whole milk.**



Source: Journal of the American Dietetic Association 2010

School Without Walls Students reached through the *Integrated Food Project*

2011

150

2014/15 school year

665



Expanding Engagement

SWW's location on the campus of the George Washington University, and the synergies and support of GW's schools and colleges and their faculty for the **IFP**, have enabled the creation of a unique program incubator. Financial support for the program, which includes stipends for the educators and administrative and research costs, has been provided thus far by GW's Urban Food Task Force and GW's Graduate School of Education and Human Development. The **IFP** now strives to maximize the university's educational resources by seeking additional funding to fine-tune the program's procedures, objectives, and outcomes, in order to build a scalable, adaptable, and successful program that can be introduced outside the university setting into a variety of Washington, D.C.-area high schools in the next five years.

To do that and to validate the project's success, financial support is essential. Resources are needed to expand the reach of the project for more students at SWW, and to secure tools to create a more uniform methodology for the curriculum in order to provide evidence for measuring the impact the **IFP** has on food choices and overall health. Sustainable research, data collection, and evaluation provide the building blocks of the program. The refined methodology and evidence to quantify the success of the **IFP** are the vital elements required to expand the program to have even greater success throughout Washington, D.C. Support for the **IFP** may be found in several key areas, including but not limited to, health and education foundations, corporate giving, government grants, and institutional and individual endowments.

Fall 2015 marked another new phase in the **Integrated Food Project**, with an expansion into middle school education. The School Without Walls at Frances-Stevens (SWWFS) is the result of a merger of Francis Junior High School and Stevens Elementary School, with the School Without Walls' challenging and rigorous academic program adapted for pre-school through 8th grade students. Following the practices and procedures developed at the high school level over the past four years, teachers of 6th, 7th, and 8th grades at SWWFS will begin to incorporate food-related content into their lessons. Drawing on the same resources available to the high school program, the new middle school program aims to have a positive impact on student behavior regarding food.

For elementary school students, SWWFS partners with FoodPrints, a program developed by D.C.'s FRESHFARM Markets that integrates gardening, cooking and nutrition education into grade schools. These efforts and exposure to food and nutrition issues at a young age provide a solid base to build on which to build **IFP** practices and lessons.



Framing the Future

The long-term goal of the **Integrated Food Project** is to positively influence individuals' health and nutrition choices as well as to produce a lesson framework that can be replicated at other schools by creating a vertical alignment of learning from pre-kindergarten through 12th grade. The aim is to provide students with a comprehensive understanding of food and nutrition themes and to develop a robust respect for the role of food in our everyday lives, our communities, and our world. With teachers creating age- and subject-appropriate lessons that fit into the framework and allow for collaboration across courses, students should graduate from high school demonstrating a mastery of food and nutrition subjects. Armed with this knowledge, young adults will surely make informed choices in how they can feed themselves and their communities more healthfully.

"The destiny of nations depends on the manner in which they feed themselves."

Jean Anthelme Brillat-Savarin



Integrated Food Project Partners

The George Washington University

In the heart of the nation's capital with additional programs in Virginia, the George Washington University was created by an Act of Congress in 1821. Today, GW is the largest institution of higher education in the District of Columbia. The university offers comprehensive programs of undergraduate and graduate liberal arts study, as well as degree programs in medicine, public health, law, engineering, education, business and international affairs. Each year, GW enrolls a diverse population of undergraduate, graduate, and professional students from all 50 states, the District of Columbia and more than 130 countries. For more information, visit www.gwu.edu.

GW Urban Food Task Force

The Urban Food Task Force unites faculty, students, staff, and volunteers who share an interest in healthy eating, sustainable food production and food policy. Under the leadership of President Knapp's wife, Diane Robinson Knapp, who is a nutritionist, the task force is working to identify and recommend ways to support scholarship, instruction, and information on sustainable urban food policies, healthy eating and food preparation, and healthy and sustainable food choices for students, faculty, and staff. For more information, visit www.gwu.edu/food-task-force.

Milken Institute School of Public Health at the George Washington University

Established in July 1997 as the School of Public Health and Health Services, Milken Institute School of Public Health is the only school of public health in the nation's capital. Today, more than 1,700 students from almost every U.S. state and 39 countries pursue undergraduate, graduate, and doctoral-level degrees in public health. The school also offers an online Master of Public Health and an online Executive Master of Health Administration which allow students to pursue their degree from anywhere in the world. For more information, visit publichealth.gwu.edu.

Graduate School of Education and Human Development at George Washington University

A community dedicated to the mission of Leading Innovation through Learning, featuring renowned faculty, dedicated staff, robust partnerships, and successful alumni. Students emerge from our programs enriched in theory and practice and become agents of change in education and human services. For more information, visit gsehd.gwu.edu.

School Without Walls High School

School Without Walls High School (SWW) is a public magnet high school located on the campus of the George Washington University. SWW was established in 1971 and accredited by the Middle States Association of Colleges and Schools. Over the years, the school has become one of the most outstanding schools of the District of Columbia Public Schools (DCPS) system and consistently ranked in the nation's top 100. School Without Walls High School provides every student with a rigorous college preparatory, humanities program that incorporates global and local resources in an experiential and interdisciplinary methodology to teaching and learning. For more information, visit www.swwhs.org.

José Andrés

Named as one of Time's "100" Most Influential People and awarded "Outstanding Chef" by the James Beard Foundation, José Andrés is an internationally-recognized culinary innovator, author, educator, television personality, humanitarian and chef/owner of ThinkFoodGroup. A pioneer of Spanish tapas in the United States, he is also known for his groundbreaking avant-garde cuisine and his award-winning group of restaurants that spans 21 concepts throughout the country in cities like Washington, D.C., Miami, Las Vegas, and Los Angeles. He is a committed advocate of food and hunger issues and is known for championing the role of chefs in the national debate on food policy. This work has earned him awards and distinctions such as Outstanding American by Choice, awarded by President Barack Obama and the McCall-Pierpaoli humanitarian award. An educator as well, he has taught at Harvard and the George Washington University. In 2015, he was named EY Master Entrepreneur of the Year in Greater Washington for his leadership and impact on the global business community. For more information visit www.joseandres.com and www.thinkfoodgroup.com.



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