



POLICY BRIEF #2

FOOD AND NUTRITION EDUCATION IN BRAZILIAN SCHOOLS

NUTRITION BEYOND SCHOOL MEALS:
SCHOOL CURRICULUM AND TEXTBOOKS



World Food Programme
Centre of Excellence
against Hunger

FNDE



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The Brazilian Fund for Education Development (FNDE – Fundo Nacional de Desenvolvimento da Educação), operating under the Ministry of Education, manages the Brazilian National School Feeding Programme (PNAE – Programa Nacional de Alimentação Escolar) and implements a variety of educational strategies at different levels, aimed at promoting long-lasting improvements in the diets and eating habits of school-aged children and adolescents.

This Policy Brief provides an overview of food and nutrition education as part of the school environment in Brazil. It explores PNAE’s two-pronged strategy to include food and nutrition education in the school curriculum and the policy base to devise this strategy.

Introduction

Integrating School Feeding and Food and Nutrition Education Initiatives

PNAE aims to contribute to students’ biopsychosocial development, learning and performance, other than promoting healthy eating habits within the school environment. This is pursued, primarily, through the engagement of nutritionists in the design of school meals’ menus, and their close collaboration with school cooks. Further, the programme also fosters the involvement of the broader school community - which includes teachers, technical staff and students - in nutrition education and awareness-raising efforts.

Under the guidelines provided for PNAE in the School Feeding Law of 2009 and the pertinent FNDE regulations, nutritionists are the professionals responsible for the school meals planning and delivery. In addition, nutritionists are incumbent to support teachers to promote the inclusion of food and nutrition education in the school curriculumⁱ.

According to PNAE’s regulations, food and nutrition education needs to be integrated in the teaching and learning process, throughout the school curriculum. It is the responsibility of

States and Municipalities to promote healthier eating habits among students, through joint engagement of the education professionals and the nutritionists that are accountable for the programme.

Since 2015, FNDE has undertaken different actions to promote healthy diets by encouraging the inclusion of food and nutritional education in the school curricular environment. PNAE’s food and nutrition education is a two-pronged strategy, implemented through: **1. the National Common Curricular Base**; and **2. the Brazilian School Textbooks Programme**. These two elements are further based on: 1. the Ministry of Health’s **Brazilian National Food and Nutrition Policy**ⁱⁱ; and 2. the Brazilian guidelines for food and nutrition education, registered in the publication **Food and Nutrition Education: Articulating Knowledge**.

Item 2 of this policy brief will explore the two-pronged food and nutrition education strategy followed in PNAE’s implementation. Item 3 will present the guidelines that orient this strategy’s policy base.

Implementation Strategies **The National Common Curricular Base and the Brazilian School Textbooks Programme**

The National Common Curricular Base (BNCC) is a normative document that defines the common and progressive set of essential knowledge and skills that all students must develop throughout the stages and modalities of Pre-primary, Primary and Secondary Education. The norms established in this document are the basis for schools across Brazil to develop their curricula by grade.

Textbooks, on their end, are based on the norms established by the BNCC and serve as a guide for the content and activities taught in Brazilian schools. Given the centrality of the textbooks in the everyday in-class teaching, the Ministry of Education, through FNDE, has dedicated efforts to integrate food and nutrition education into the school textbooks from early to late stages of basic education (concerning children from 6 to 12 years-old). This initiative is part of the Brazilian School Textbooks Programme (PNLD - Programa Nacional do Livro Didático).

This Policy Brief focuses on food and nutrition initiatives in primary education, as the Brazilian Government considers this as a priority stage to foster healthy eating habits.ⁱⁱⁱ

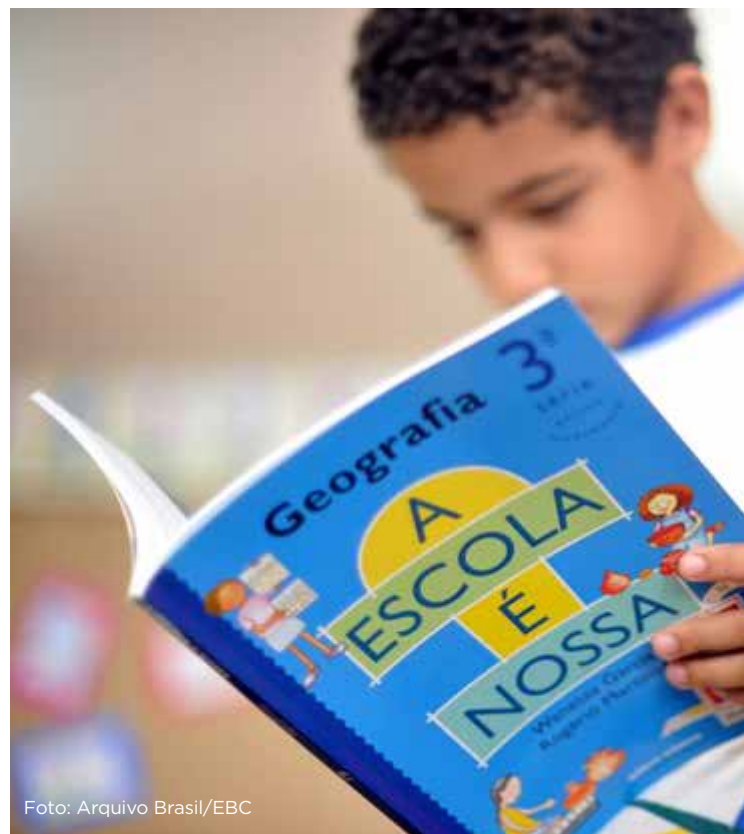


Foto: Arquivo Brasil/EBC

Curriculum

In Brazil, primary education is divided into the initial years (1st to 4th grades) and the final years (5th to 9th grades). Among the subjects taught in these stages, three of them approach food and nutrition security through explicit curricular components. These subjects are: Geography, Biology and Chemistry.^{iv}

From 1st to 4th grades, students learn about the characteristics of living beings and their relationship with the environment around them. This includes human being's usage of natural resources to produce and access food - as in raising livestock, farming and building food chains. The table below shows how food and nutrition related issues are approached in each school subject, from 1st to 4th grades.

Grade	Subject	Theme	Objectives students should work in-class with the textbooks:
1st	Human Sciences (Geography)	Nature, environment, and quality of life	To observe changes in dressing and eating habits in students' communities throughout the year, according to variations of temperature and humidity.
3rd	Human Sciences (Geography)	Human capital and labour	To identify foods, minerals and other natural resources, as well as the type of labour needed to explore them.
3rd	Human Sciences (Geography)	Nature, environment, and quality of life	<p>To explore the uses of natural resources, especially the uses of water in daily activities (e.g.: to prepare food, for hygiene, for gardening, etc.).</p> <p>To discuss the environmental issues caused by the inappropriate use of resources.</p> <p>To study the use of water in agriculture and in the generation of energy, with attention to adequate uses and the maintenance of drinking water supply.</p> <p>To compare the impacts of urban and rural economic activities on the natural physical environment, as well as risks related to the use of tools and machines.</p>
4th	Natural Sciences (Biology and Chemistry)	Life and evolution	<p>To understand and analyse simple examples of food chains, recognizing the position occupied by living beings in these chains and the role of the sun as the primary source of energy in food production.</p> <p>To explore the participation of microorganisms in the production of food, fuel, medicine, among others.</p> <p>To study the means of transmission of some microorganisms (viruses, bacteria and protozoa) and the appropriate attitudes and measures to prevent associated diseases.</p>

From 5th to 9th grades, based on students' recognition of the relationships that occur in nature, they learn about the participation of human beings in food chains as a modifying element of the environment.

The curriculum in these grades promotes and encourages human coexistence in greater harmony with the environment, by exploring intelligent and responsible uses of natural resources. This includes smart alternatives for food production and procurement, as well as strategies to avoid waste. Finally, subjects contemplate individual and collective actions that could be undertaken to ensure socio-environmental sustainability.

Another topic that is discussed in these last years of primary education is the functioning of the human body. In addition, health-related issues are also covered, not only as a state of dynamic balance of the body, but as a common good of the community, opening space to discuss what is needed to promote individual and collective health, including in the scope of public policies.

The table below shows how food and nutrition related issues are approached in each school subject, in the final years of primary education.

Grade	Subject	Theme	Objectives students should work in-class with the textbooks:
5th	Natural Sciences (Biology and Chemistry)	Life and evolution	<p>To understand why the digestive and respiratory systems are considered co-responsible for the body's nutrition process, based on the identification of these systems' functions.</p> <p>To understand the relationship between the functioning of the circulatory system, the distribution of nutrients through the body and the elimination of waste.</p> <p>To maintain healthy and balanced diets based on the characteristics of the food groups (nutrients and calories) and individual needs (activities performed, age, sex, etc.).</p> <p>To discuss modalities of malnutrition (such as obesity) among children and young people, based on the analysis of their habits (eating habits, physical activity, etc.).</p>
6th	Natural Sciences (Biology and Chemistry)	Life and evolution	To interpret the health conditions of the community, city or state, based on: 1. health policies and their impact; and 2. the analysis and comparison of health indicators (such as infant mortality rate, basic sanitation coverage and incidence of waterborne diseases, atmospheric, among others).
8th	Human Sciences (Geography)	Human capital and labour	To analyse the importance of agricultural production in urban-industrial societies, in face of global unequal access to food resources and raw materials.

Textbooks

The textbooks distributed by FNDE are chosen by schools from a list of book collections developed by private publishers in Brazil. The list consists of publications enrolled in the textbook programme, after pedagogic approval of technical commissions from the Ministry of Education. These commissions are composed of specialists from different areas of academic knowledge that validate the books. Even though each textbook or book collection is edited by a different publisher – therefore, each carrying a different perspective –, the books' essential content must follow the National Common Curricular Base and the policy guidelines that will be presented in section 3.

In addition to being included in the content of textbooks, food and nutrition education is also featured in their back covers. These covers show pictures that suggest how adequate food production and distribution systems can

promote social justice and protect the environment. For example, the Biology and Arts textbooks have a new back cover since 2018. Instead of the Brazilian National Anthem – previously present in all textbooks – two messages are posted highlighting the theme of food.

One of the covers portrayed below is of a Biology book and poses the question: "Where does our food come from?". The text explains how food production and distribution systems can promote social justice and protect the environment or, on the contrary, generate social inequalities and threats to natural resources and biodiversity.

Another cover, of a book for Arts classes, presents a short script on how to have a healthier diet, with the purchase of organic products, by correctly washing the food and by preparing adequate meals.



Building a Policy Base

Guidance for School Professionals on Food and Nutrition Education

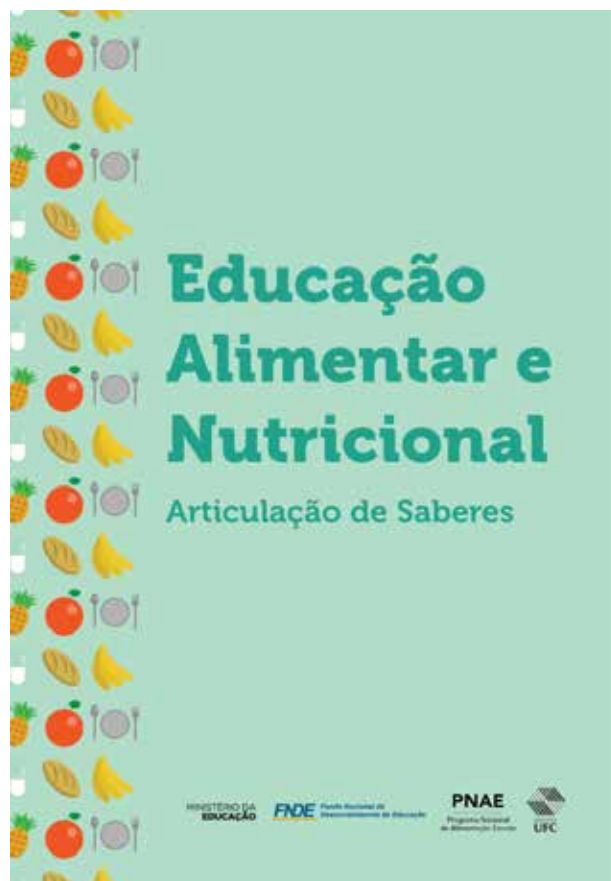
As part of FNDE's actions to improve the students' eating habits, in 2018, the **Food and Nutrition Education: Articulating Knowledge** book was launched for PNAE, as a guidance material^{iv}. This document promotes the articulation between nutrition and education in PNAE's implementation process. This tool was developed by FNDE and the Federal University of Ceará, a well-renowned public institution in Brazil.

This guidance book is an extensive academic review and suggests several ideas to promote food and nutrition education activities. Instead of creating methods or outlining specific activities, it showcases reflexive frameworks that can be incorporated by other school programmes. This publication consists in a tool for nutritionists, teachers, school technical staff, and students to work together in building food and nutrition education activities.

The document is divided into four parts, that aim to familiarize nutritionists with the universe of education, by providing insights on how these health professionals can improve their actions in school feeding and food and nutrition education in the school environment. In the same way, the document provides information for education professionals to better understand the rationale of nutritionists in the design of menus: respecting student's nutritional needs, culture and environment.

The School Textbooks Programme (PNLD) as well as School's Common Curricular Base (BNCC) have incorporated many ideas from this guidance material.

The next section will describe the format of the Food and Nutrition Education: Articulating Knowledge publication, and highlight some important elements that were taken from this guidance book and are reflected in school's curricula and textbooks.



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PART 1

Common education and nutrition background for food and nutrition education

The initial part of the book discusses three normative documents that help to shape the Food and Nutrition Education framework in Brazil. Their guidelines are meant to be incorporated by nutritionists in school menus design, and by teachers in curricular food and nutrition education.



Framework for Food and Nutrition Education for Public Policies

Launched in 2012, the Framework aims to create a common field of reflection and orientation of the practice of Food and Nutrition Education initiatives in the public sector. The idea is that these practices originate, mainly, in public action, contemplating the diverse sectors linked to the process of food production, distribution, supply and consumption.^{vi}



Dietary Guidelines for the Brazilian Population

This food guide is a document launched in 2014 by the Ministry of Health, which outlines key recommendations for a healthy diet within the Brazilian population. It also addresses recommendations on food choices, information on how to prepare meals, and encourages the practice of home-cooking. In addition, the publication shows tips for coping with daily obstacles to maintaining a healthy diet.^{vii}



Intersectoral Strategy for the Prevention and Control of Obesity

The strategy presents a set of recommendations for Brazilian states and municipalities, that may contribute to reducing the prevalence of overweight and obesity in the country. The strategy is structured around 6 axes: 1) availability of and access to healthy and adequate food; 2) actions for education, communication and information, 3) promotion of a healthy lifestyle in specific environments; 4) food and nutritional surveillance; 5) integrated healthcare; 6) regulation and control of food safety.^{viii}



PART 2

Food and Nutrition Education and Human Sciences

This part of the book presents a historical and cultural perspective on food and nutrition. It brings an historical review of food and nutrition practices and policies in Brazil from 1930 to 2018, addresses concepts related to food and nutrition, and how they are relevant to the school environment. The rationale behind this approach is that by acquiring greater understanding of a social and cultural approach to food and nutrition, nutritionists are better equipped to develop a pedagogic plan alongside education professionals, specially teachers and principals.

PART 3

Food and Nutrition Education and Intersectoral Dialogues

Part 3 discusses pedagogical approaches that have influenced both Brazilian formal education and practices of food and nutrition education in the country. In addition to presenting each approach, it highlights the importance of active and dialogic pedagogy in food and nutrition education.

PART 4

Food and Nutrition Education and Breaking Down the Silo

The fourth and final part of this guideline discusses the strong silo mentality between nutrition and education professionals. Further, it also approaches the knowledge cleavage between technical knowledge (relative to scholars and technicians) and common knowledge on food and nutrition. Additionally, this part of the document highlights the consequences of the lack of dialogue between scientific knowledge and popular knowledge. This discussion takes food and nutrition as a crosscutting theme, articulating how the school community and its indirect beneficiaries (families and local communities) can develop effective, consistent and long-lasting food and nutrition education practices, especially in the context of PNAE.

CONCLUSION

The Brazilian national school feeding programme (PNAE) is run by the Ministry of Education, through the National Fund for Education Development (FNDE).

Since 2015, FNDE has undertaken different actions to promote healthy diets by encouraging the insertion of food and nutritional education in the school curricular environment.

PNAE's food and nutrition education framework is a two-pronged strategy, implemented through: 1. the National Common Curricular Base; and 2. the School Textbooks Programme. These two elements

are further based on: 1. the Ministry of Health's **Brazilian National Food and Nutrition Policy**^{ix}; and 2. the Brazilian guidelines for food and nutrition education, registered in the publication **Food and Nutrition Education: Articulating Knowledge**.

This policy brief aimed to present the above-mentioned elements of the Brazilian food and nutrition education. Further, it attempted to show how the implementation of this strategy can increase PNAE's impact on eating habits among students, families and the school community, going beyond the sole provision of food.



ⁱ PNAE regulations state that every municipality in Brazil should have at least one nutritionist working for the school feeding programme. This professional is also responsible for planning the school menus, designing the food procurement list, monitoring food quality and safety, and assisting the school cooks.

ⁱⁱ Available in English: http://189.28.128.100/dab/docs/portaldab/publicacoes/national_food_nutrition_policy.pdf

ⁱⁱⁱ For more information on the curricular components of biology, geography, chemistry and mathematics school books for secondary education, please access the "Guia de livros didáticos PNLD 2018 - Ensino Médio" (available in Portuguese): <https://www.fnde.gov.br/index.php/programas/programas-do-livro/pnld/guia-do-livro-didatico/item/11148-guia-pnld-2018>

^{iv} In Brazilian primary education, Biology, Physics and Chemistry are taught together, under the rubric of "Natural Sciences". In some primary schools, Geography and History may also be taught together, as "Interdisciplinary Human Sciences". In secondary education, all subjects are taught separately.

^v Available in Portuguese: <https://www.fnde.gov.br/programas/pnae/pnae-eixos-de-atuacao/pnae-educacao-alimentar-nutricional>

^{vi} Available in Portuguese: <http://mds.gov.br/caisan-mds/educacao-alimentar-e-nutricional-marco-de-referencia-de-educacao-alimentar-e-nutricional-para-as-politicas-publicas>

^{vii} Available in English: http://bvsm.sau.de.gov.br/bvs/publicacoes/dietary_guidelines_brazilian_population.pdf

^{viii} Available in Portuguese: <http://www.saude.br/index.php/articles/111-doen-cas-cronicas-nao-transmissiveis/202-divulgacao-da-estrategia-intersetorial-de-prevencao-e-controle-da-obesidade>

^{ix} Available in English: http://189.28.128.100/dab/docs/portaldab/publicacoes/national_food_nutrition_policy.pdf

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