



# Where Does our Food Come From?

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	Time	Grade Level	Content Area [s]	
	N/A	Elementary	Scientific Inquiry	<b>Materials</b> <ul style="list-style-type: none"><li>• School lunch menu</li><li>• computers with internet access</li><li>• science notebooks</li></ul>
<b>Objective</b> <p>“Students were able to engage in a variety of science process skills: posing a researchable question, planning an investigation, and collecting and analyzing data to answer their question.”</p>				
<b>Activity Outline</b> <ol style="list-style-type: none"><li>1 “I ...began the PBL with the following: ‘Some of you asked me where the food you eat in the cafeteria comes from. I think that we should do an investigation to find out the answer ... How do you think we can begin to collect data to find out what kinds of food we eat in the cafeteria?’” (41). “For ease of collection, I decided to limit our investigation to fruits and vegetables, as I knew a variety of produce was served in the cafeteria. We agreed to collect data for two weeks (10 days).”</li><li>2 “After the data is collected, discuss how scientists organize it in a meaningful way ... Once the data collection was complete, students organized their data by creating bar graphs ... this not only integrated math into the unit, but also provided a pictorial representation of the data collected.”</li></ol>				

- 3 “Once students had their list of fruits and vegetables that were offered over a two-week period, it was time to investigate the problem: Where does our food come from? Students searched the internet ... once the research had been conducted, students compared the data they gathered and compiled the data in one large chart. We noticed that most of the fruits and vegetables they consumed came from the western United States.” “Our problem state had then been established: Much of the food we eat is not grown in our own state.”
- 4 “Now that our problem had been identified, it was necessary to research the consequences of the problem and explore options to solve it. ... Students spent approximately 20 minutes conducting this research and recorded data in their science journals under two headings: ‘What does this mean?’ and ‘How do we address our problem?’.” “Once students had learned a bit about these problems, they began to brainstorm possible solutions. Students could talk to their parents about trying to buy local foods ... write letters to district offices and administrators asking for more locally sourced foods, or create a suggested menu to present to the school administrative team.”
- 5 “Once students have completed the PBL and provided viable options for supporting consumption of local foods, it was important to return to the discussion connecting what students were doing with science. ... We discussed how scientists begin with a current and important question, plan an investigation, collect and analyze data, and formulate explanations to explore answers to the question. ... I asked students whether any new questions arose from their observations and how they might go about investigating them.”

## Goals

“Students’ learning was grounded in a meaningful problem of which they themselves posed, which may have increased their interest and motivation in investigating the problem and exploring possible solutions. This unit also supports the notion that problem-based learning can facilitate student-centered science instruction while simultaneously engaging students in building process skills.”

## Formative Assessment

“Formative assessment was conducted by questioning students throughout the inquiry, for example, by asking, ‘How are we acting like scientists?’ or ‘What do you think scientists do when they discover a problem?’ Additionally, students’ science journals were collected to assess how students were making observations and inferences and organizing their data.”

## Post Assessment

“The unit was summatively assessed with a rubric ... this four-tier rubric allowed me to assess the relevance of data collected, students’ abilities to carefully label drawings and include details, organize their data representation, and formulate plausible explanations from their data).”

## Extension Activities

“Students decided they wanted to investigate which foods were grown locally and offer this list with one meal option to the school’s administration. ... Once students had compiled a list of local vegetables and fruits, they created a sample menu to present to the administration.”



## Safety

“It is important to monitor the students’ use of the internet. One way to ensure appropriate use of the internet is to offer students a list of websites that contain the needed information ... if you choose to allow students an open search, it is best to minimize confusion and complications by limiting searches to food grown in the United States.”

