

COMPOSTING IN THE CLASSROOM

QUEEN MARY ELEMENTARY



ABOUT OUR PARTNER

Queen Mary Elementary (QME) is a public school in Point Grey, Vancouver with 315 students as of 2019. For this project, we worked with Grade 2 teacher Michael Atkinson along with the 24 students in his class.

MISSION STATEMENT

QME aims to provide an enriched environment in which children are encouraged to think, question, create and wonder.¹



OPPORTUNITIES

Enhance composting bins



Decrease the amount of plastic contamination in raised garden beds

Increase knowledge through composting training



OUR AIMS

1. Improve QME's compost bins
2. Instruct QME students on how to sort their compost and use the bins

SIGNIFICANCE

COMMUNITY FOOD SECURITY

"A situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes self-reliance and social justice."²



Improving upon the compost system at QME not only enhances student's food literacy but also allows the production of nutritious food in safe soil resulting in increased community food security.

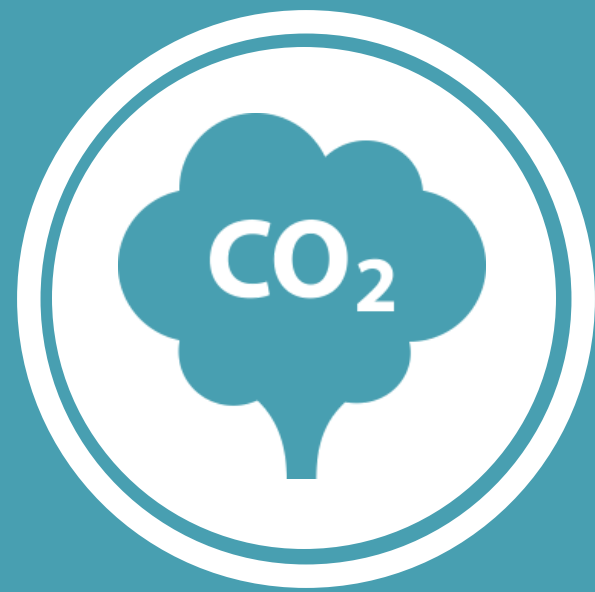
APPROACH

- 1st lesson: students learned composting basics and helped repair the broken compost bins.
- 2nd lesson: students rotated between **five workshops** to explore more specific compost-related topics.
- Students filled out worksheets to test their knowledge. Their answers were used to assess the effectiveness of our lessons.

Only 32% of students (grades 6-8) in Vancouver during the 2011-2012 school year took part in composting education.³



1) Difference between green and brown material



2) Effects of incorrect sorting



3) Use of compost as nutrients for plant growth



4) Basics of nutrition and serving sizes

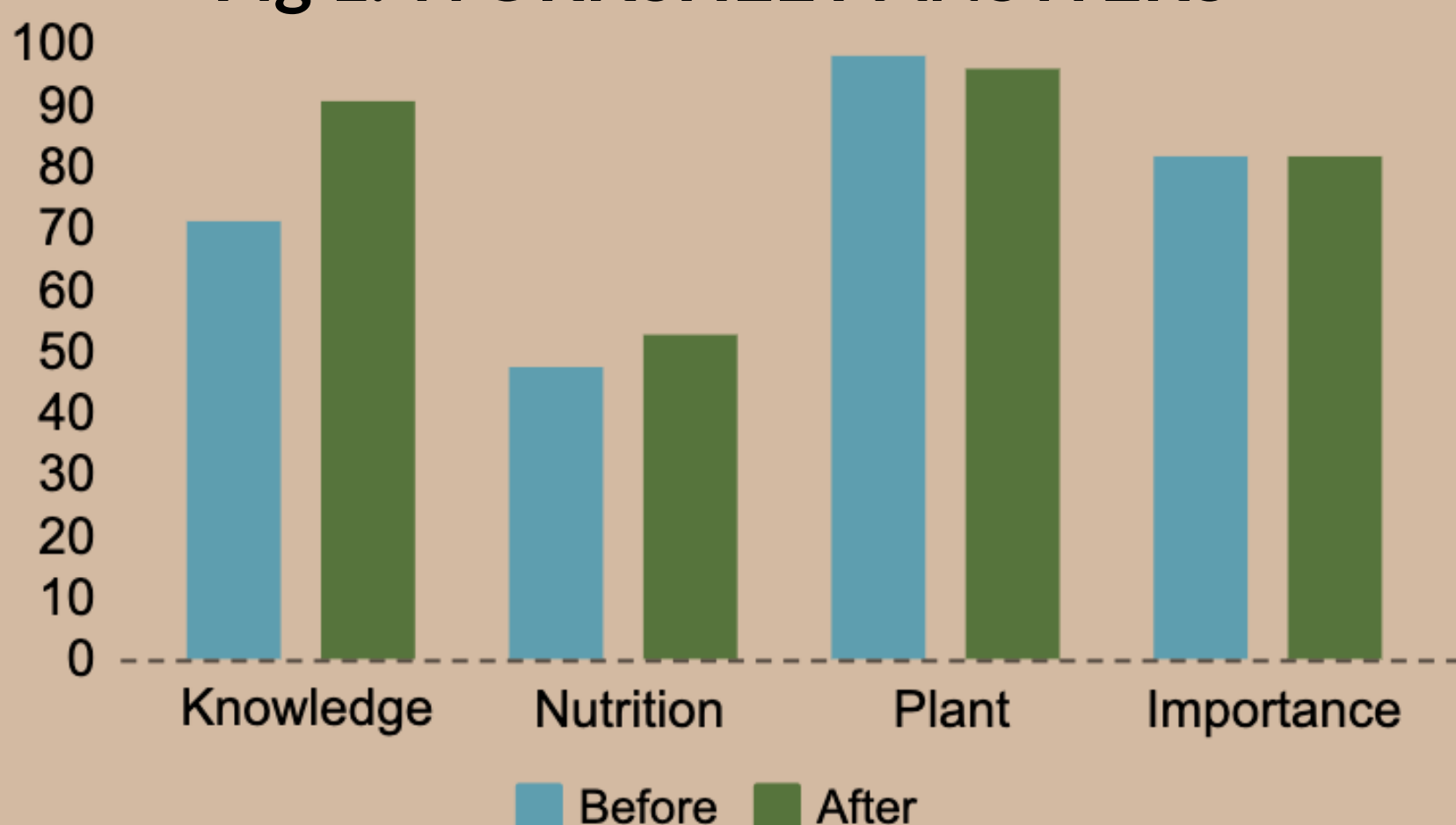


5) Sorting through the contents of the school's green bins

RESULTS



Fig 1. WORKSHEET ANSWERS



- Fig 1.
- "Knowledge" about compost was self-assessed by students on a scale from 1 to 10.
 - "Nutrition" and "Plant" are percentages of correct responses to multiple choice questions related to correct serving sizes and plant growth requirements.
 - "Importance" of compost was self-assessed by students on a scale from "boring" (assigned a numerical value of 0) to "very interesting" (assigned a value of 4).

TAKE HOME MESSAGE

Results show that these workshops are beneficial to children's learning and that repetitive exposure to food systems in the curriculum is necessary for the knowledge to be retained.



NEXT STEPS

- Students will use their newfound knowledge about the school's compost system and food literacy skills in their futures.
- This knowledge can be passed on to younger students through peer learning opportunities as well as continuous guidance from the faculty at the elementary school.⁴

Sources:

1. Mission Statement. (n.d.). Retrieved from <https://www.vsb.bc.ca/schools/queen-mary/About-Us/Mission-Statement/Pages/default.aspx>.
 2. Hamm, M. and Bellows, A. (2003). Community Food Security and Nutrition Educators. *Journal of Nutrition Education and Behavior*, Volume 35, Issue 1, Pages 37-43.
 3. Stephens, Teya A, M.Sc., R.D., Black, Jennifer L, Ph.D., R.D., Chapman, Gwen E, Ph.D., R.D., Velazquez, Cayley E, Ph.D., R.D., & Rojas, A., Ph.D. (2016). Participation in school food and nutrition activities among grade 6-8 students in Vancouver. *Canadian Journal of Dietetic Practice and Research*, 77(3), 148-153. doi:<http://dx.doi.org/10.3148/cjdp-2016-003>
 4. Topping, K. J. (2005). Trends in Peer Learning. *Educational Psychology*, 25(6), 631-645. doi: 10.1080/01443410500345172

Learn more about our project: <https://ifs350.landfood.ubc.ca/community-projects/2019-fall-projects/3-2/>

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