TARGET AUDIENCE
This program is for students who are in 4th through 6th grade.

SUMMARY
Nutrition to Grow On, a school-based, nutrition education curriculum, is designed to increase children's nutrition knowledge about and preference for fruits and vegetables. Students are actively engaged by growing produce in vegetable gardens.

EVIDENCE
A quasi-experimental study by the program developers compared the nutrition knowledge and vegetable preferences of students not receiving the program (i.e., control group), students receiving the nutrition component of the program only (NL), and students receiving the nutrition and gardening components of the program (NG). NL and NG students had significantly higher nutrition knowledge than control students at the end of the program and at a 6-month follow-up. At the end of the program, NL and NG students had significantly higher preference for carrots and broccoli than control students, and NG students had a significantly higher preference for snow peas and zucchini than control and NL students. At the 6-month follow-up, NL students retained their stronger preference for carrots, and NG students retained a stronger preference for broccoli, snow peas, and zucchini. This study only examined 4th graders and did not examine program effect on fruit and vegetable intake or obesity measures.

COMPONENTS
The Nutrition to Grow On program is primarily designed to improve nutrition/diet; however, it also includes a lesson intended to increase physical activity.

This program consists of a classroom-based curriculum that pairs an interactive lesson about nutrition or physical activity with a related hands-on gardening activity.

Lesson topics include learning about nutrients, the MyPlate USDA Food Guidance System, food labels, goal-setting behaviors, consumerism, and making healthy snacks. The gardening activities, which correlate with these lesson topics, begin with planting seeds and culminate with harvesting vegetables. Each lesson in the curriculum contains background information, lesson objectives, a list of materials needed, preparation instructions, detailed directions, student handouts, and possible extension activities. The curriculum also has sections devoted to student assessment; cross-curricular tie-ins to subjects such as language arts, math, and science; and additional resources.

Parents receive a letter that introduces the program and encourages parental support. A family newsletter is also sent home after each lesson to help involve the whole family in learning about the topics, stimulating discussion, and supporting the program.

PREVIOUS USE
The program was tested in classrooms across California prior to the publication of the first edition of the curriculum in 2001. The second edition was published in 2013. The program has also been used in schools in Maine. However, the extent to which the program has been used beyond this usage is unknown.
Nutrition to Grow On

**TRAINING**

Training is not necessary or available; however, teachers should review the curriculum prior to implementing the program.

**CONSIDERATIONS**

Considerations for implementing this program include acquiring buy-in from school administrators and teachers; providing time for teachers to prepare for and deliver the lessons during the school day; obtaining gardening and other lesson materials; allotting space with sufficient light and water access for gardening (i.e., an outdoor plot or outdoor/indoor container gardening space); and understanding that the program will need to be implemented during the growing season, which varies based on region and climate.

The Clearinghouse can help address these considerations. Please call 1-877-382-9185 or email Clearinghouse@psu.edu

**IMPLEMENTATION**

If you are interested in implementing the Nutrition to Grow On program, the Clearinghouse is interested in helping you! Please call 1-877-382-9185 or email Clearinghouse@psu.edu

**TIME**

The curriculum contains nine lessons with a 60-minute nutrition or physical activity lesson and a 30-minute gardening activity. These lessons and activities do not need to be taught on the same day.

**COST**

The curriculum is available for free online [www.cde.ca.gov/ls/nu/he/documents/ntgocomplete.pdf](http://www.cde.ca.gov/ls/nu/he/documents/ntgocomplete.pdf)

Additional funding may be needed to purchase gardening and other lesson materials.

**EVALUATION PLAN**

To move Nutrition to Grow On to the Promising category on the Clearinghouse Continuum of Evidence, at least one evaluation should be performed demonstrating positive effects lasting at least six months from program completion.

The Clearinghouse can help you develop an evaluation plan to ensure the program components are meeting your goals. Please call 1-877-382-9185 or email Clearinghouse@psu.edu

**CONTACT**

Contact the Clearinghouse with any questions regarding this program.
Phone: 1-877-382-9185 Email: Clearinghouse@psu.edu

You may also contact the California Department of Education's Education and Nutrition Policy Unit by mail 1430 N Street, Sacramento, CA 95814, phone 1-916-319-0800, or visit [www.cde.ca.gov/ls/nu/he/nrttogrow.asp](http://www.cde.ca.gov/ls/nu/he/nrttogrow.asp)

**SOURCE**

[www.cde.ca.gov/ls/nu/he/nrttogrow.asp](http://www.cde.ca.gov/ls/nu/he/nrttogrow.asp) and [http://rtips.cancer.gov/rtips/programDetails.do?programId=1073505](http://rtips.cancer.gov/rtips/programDetails.do?programId=1073505)

www.militaryfamilies.psu.edu