

# COLORADO FARM TO SCHOOL TASK FORCE EVALUATION TOOLKIT

## ATTACHMENT 1: OUTCOMES FOR STUDENTS

### SELECTING OUTCOMES

This attachment provides you with a list of outcomes related to students. These are changes in the students' attitude, knowledge, behavior, and/or health that can result from farm to school programming. Select those outcomes most relevant to the components of your program.

### SELECTING MEASUREMENT TOOLS

The use of measurement tools is simplified by selecting from existing tools and adapting them. The following list of tools specifies which outcomes are measured and age range of targeted respondents. Please ensure the tools you select are appropriate to your needs, and modify them to fit your outcome or population of interest. Additionally, some tools require greater complexity in their implementation and it is important to consider the feasibility of implementation when selecting a measure.

#### Outcomes and Measurement Tool Selection Table: Students

	Outcomes	This may be a fit for your program if...	Measurement Tools: Type	Measurement Tools: Examples
Student Knowledge	1. Student gains in knowledge and awareness about gardening/ school gardens.	Your program includes gardening education and/or a school garden.	<p><b>Survey</b> regarding student participation in school garden program and what they learned.</p> <p><b>Student Focus Group</b> questions regarding likes/ dislikes, and perceptions of purpose for garden.</p>	<ul style="list-style-type: none"> <li>• <a href="#"><u>Cornell Garden Based Learning Post-test for Children and Youth.</u></a> (Survey is appropriate for younger and older children)</li> <li>• <a href="#"><u>Garden-based Education in School Settings.</u></a> Five focus group questions (Page 140)</li> </ul>
	2. Student gains in knowledge and awareness about agriculture, local foods and	Your program includes agriculture and local foods education.	<b>Pre/post-test evaluations</b> of student knowledge using surveys.	<ul style="list-style-type: none"> <li>• Recommended tool for 5th and 6th grade students on local foods at: <a href="#"><u>Bearing Fruit: Farm to School Program Evaluation Resources and Recommendations.</u></a> "<a href="#"><u>Fresh from the Farm Student Survey</u></a>" (Page 138-140). Also includes questions on fruit and vegetable preferences.</li> </ul>

	Outcomes	This may be a fit for your program if...	Measurement Tools: Type	Measurement Tools: Examples
	seasonality.			<ul style="list-style-type: none"> <li>Recommended tool for measuring 6-12-year-old student knowledge and attitudes about healthy and local foods: <a href="#"><u>Wisconsin Farm to School: One-Year Evaluation Report "Wisconsin Farm to School 2010-2011 Student Survey"</u></a> (Appendix D, Pages 27-37)</li> </ul>
	3. Student gains in knowledge and awareness about healthy eating,	Your program includes nutrition and/or healthy eating education.	<b>Pre/post-test evaluations</b> of student knowledge using surveys.	<p>Recommended 5-7 question surveys on nutrition and healthy food:</p> <ul style="list-style-type: none"> <li>4th-11th graders: <a href="#"><u>California Department of Public Health Compendium of Surveys "General Knowledge Survey"</u></a> (Pages 140)</li> <li>3rd-5th graders: <a href="#"><u>California Department of Public Health Compendium of Surveys "Hawthorne Unified School District Student Knowledge Survey"</u></a> (Pages 141)</li> <li>Recommended tool for 9 to 11-year-old children on nutrition knowledge, expected outcomes for eating healthy or unhealthy, and healthy behavioral expectations at: <a href="#"><u>California Department of Public Health Compendium of Surveys "School and Idea Resource Kit"</u></a> (Pages 67-75)</li> <li>Recommended tool for 3<sup>rd</sup> -5<sup>th</sup> graders who are food-stamp eligible to measure perceived peer and parent healthy behavior norms, healthy behavior expectations, outcome expectations from healthy eating, teacher encouragement to eat healthy, home access to fruits and vegetables, healthy eating in the prior 24 hours, attitudes toward particular fruits and vegetables, and nutrition knowledge at: <a href="#"><u>California Department of Public Health Compendium of Surveys "Nutrition Education Survey"</u></a> (Pages 108-120)</li> </ul> <p>Assess student knowledge through activities:</p> <ul style="list-style-type: none"> <li>Recommended activity for measuring student awareness of different types of fruits and vegetables, their characteristics, and preparation techniques: <a href="#"><u>Community Youth Organization Idea &amp; Resource Kit "Fruit and Vegetable Name Game"</u></a> (Pages 29-30)</li> </ul>
<b>Student Attitudes</b>	4. Students demonstrate willingness to try out new foods and healthier options.	Your program includes opportunities to try new foods/healthier foods.	<b>Pre/post-test evaluations</b> of student behavior using surveys.	<ul style="list-style-type: none"> <li>Recommended tool for pre-post parent survey on parent and child preferences for and consumption of fruits and vegetables in the previous at home and school: <a href="#"><u>California Department of Public Health Compendium of Surveys "Food Frequency Questionnaire"</u></a> (Pages 24-26, 48-63)</li> </ul>

	Outcomes	This may be a fit for your program if...	Measurement Tools: Type	Measurement Tools: Examples
				<ul style="list-style-type: none"> <li>Recommended survey on attitudes toward particular fruit and vegetables in 3rd through 5th graders: <a href="#"><i>California Department of Public Health Compendium of Surveys "Food Preferences Survey"</i></a> (English: Pages 121-123, Spanish: Page 124)</li> <li>Recommended tool to measure 3rd grade student attitudes toward and willingness to try fruits and vegetables: <a href="#"><i>Farm to School Evaluation Toolkit "Fruit and Vegetable Neophobia Scales"</i></a> (Pages 9-12)</li> <li>Good tool for school garden taste testing, "Garden Vegetable Frequency Questionnaire" in <a href="#"><i>Garden-based Education in School Settings</i></a> (Pages 173 - 181)</li> </ul>
5.	Improved K-12 student attitudes toward eating healthy foods and locally grown fruits and vegetables.	Your program exposes students to or educates them about healthy foods and locally grown fruits and vegetables.	<b>Pre/post-test evaluations</b> of student attitudes using surveys.	<ul style="list-style-type: none"> <li>Recommended tool for 9-11-year-old children on perceived family and social norms regarding fruit and vegetable consumption: <a href="#"><i>California Department of Public Health Compendium of Surveys "Norms Surveys for Children"</i></a> (Pages 144-145)</li> </ul> <p>Recommended tool to measure 4th grade 9-11 year old children's health and social outcome expectations from eating fruits and vegetables:</p> <ul style="list-style-type: none"> <li>Background: <a href="#"><i>California Department of Public Health Compendium of Surveys "Outcome Expectations Surveys for Children"</i></a> (Page 146)</li> <li>4<sup>th</sup> grade: <a href="#"><i>California Department of Public Health Compendium of Surveys "Outcome Expectations for Eating Fruits and Vegetables"</i></a> (Page 147)</li> <li>9-11 year olds: <a href="#"><i>California Department of Public Health Compendium of Surveys "Outcome Expectations for Eating Fruits and Vegetables"</i></a> (Page 148)</li> </ul>
6.	Increased K-12 student satisfaction with school meal options.	Your program includes changes to school meal options.	<b>Pre/post-test evaluations</b> of student satisfaction using surveys.	<ul style="list-style-type: none"> <li>Recommended tool for pre-post student survey on the cafeteria environment, including noise level, smell, lighting, and food taste (age unspecified): <a href="#"><i>Bearing Fruit: Farm to School Program Evaluation Resources and Recommendations, "Student Dining Evaluation"</i></a> (Page 136-137)</li> <li>Recommended tool for pre-post 4th grade through 7th grade student survey on attitudes toward food served at school, experiences with gardening and visiting, nutrition education, and changes in consumption of healthy and unhealthy foods: <a href="#"><i>Bearing Fruit: Farm to School Program Evaluation Resources and Recommendations, "Student Survey"</i></a> (Page</li> </ul>

	Outcomes	This may be a fit for your program if...	Measurement Tools: Type	Measurement Tools: Examples
				146-150) <ul style="list-style-type: none"> <li>Recommended tool for pre-post student interview/focus group protocol on the salad bar (age unspecified): <a href="#"><u>Bearing Fruit: Farm to School Program Evaluation Resources and Recommendations, "Student Interview Protocol"</u></a> (Page 150)</li> </ul>
Student Behavior	7. Student meal participation increases (or returns to the same level as prior to FTS).	Your program includes changes to school meals and the evaluation begins at least a year after the FTS program started.	<b>Tracking</b> participation in school meal programs monthly or yearly over time. <b>Observation</b> of student participation in school breakfast and lunch	<ul style="list-style-type: none"> <li><a href="#"><u>Food Services Meal Counts by Site</u></a> spreadsheet developed by a school district food services director</li> <li>Recommended tool for observing how many students participate in breakfast and lunch school meals (count and/or estimate): <a href="#"><u>School Environment Observation Tool</u></a></li> </ul>
	8. Increased student consumption of locally sourced foods.	Your program includes locally sourced foods in the cafeteria.	<b>Pre/post-test evaluations</b> of student behavior using surveys. <b>Observation</b> of student consumption of food during school meals	<ul style="list-style-type: none"> <li><a href="#"><u>Bearing Fruit: Farm to School Program Evaluation Resources and Recommendations, "New York Survey of K-12 Food Service Directors"</u></a> (Pages 89)</li> <li><a href="#"><u>Bearing Fruit: Farm to School Program Evaluation Resources and Recommendations, "Oklahoma Institutional Food Service Survey"</u></a> (Pages 99)</li> <li>Recommended tool for assessing plate waste in school cafeterias: <a href="#"><u>Assessment of Plate Waste within Milwaukee Public Schools</u></a>, (p. 29, Appendix C (tool), pp. 32- 34, Appendix E &amp; F (example output))</li> <li>Food purchasing patterns among students (higher education): <a href="#"><u>Increasing Consumer Awareness at UVic</u></a>, (Appendix 1)</li> <li>Recommended tool for observing how many students are eating a good portion of their school meals (can be adapted for local food): <a href="#"><u>School Environment Observation Tool</u></a></li> </ul>
	9. Students consume more fruits and vegetables through farm to school meals (+0.99	Your program measures student consumption before and after their exposure to FTS programming.	<b>Pre/post-test evaluations</b> of student behavior using surveys.	<ul style="list-style-type: none"> <li>Recommended tool for students to estimate food and drink consumes on a typical day: <a href="#"><u>Bearing Fruit: Farm to School Program Evaluation Resources and Recommendations, "24-Hour Diet Recall"</u></a> (Page 154)</li> <li>Recommended tool for elementary school students to record what they chose, ate, and liked in their school lunch: <a href="#"><u>Farm to School Evaluation</u></a></li> </ul>

	Outcomes	This may be a fit for your program if...	Measurement Tools: Type	Measurement Tools: Examples
	to +1.3 servings/day) and at home.			<p><u><a href="#">Toolkit "School Lunch Recall"</a></u> (Pages 1-8)</p> <ul style="list-style-type: none"> <li>Recommended tool for 3<sup>rd</sup>-12<sup>th</sup> grade students on fruit and vegetable consumption, television watching, and activity levels during the previous day (includes separate measures for 7-9-year-olds and 9-11-year-olds): <u><a href="#">California Department of Public Health Compendium of Surveys "Day in the Life Questionnaire"</a></u> (Pages 24-40)</li> <li>Short (3 question) fruit and vegetable consumption questionnaire for 6<sup>th</sup> through 8<sup>th</sup> graders regarding the past 24 hours: <u><a href="#">California Department of Public Health Compendium of Surveys "School and Physical Activity and Nutrition Project"</a></u> (Pages 24-26, 42)</li> <li>Short (6 question) survey on fruit and vegetable consumption in past week for 9<sup>th</sup> through 12<sup>th</sup> graders: <u><a href="#">California Department of Public Health Compendium of Surveys "Youth Risk Behavior Survey: Fruit and Vegetable Questions"</a></u> (Pages 24-26, 43-44)</li> <li>Surveys on healthy and unhealthy food consumption by children in the past 24 hours, fruit and vegetable consumption of parents, and access to fruits and vegetables in the home, for children in 3<sup>rd</sup>-12<sup>th</sup> grades: <ul style="list-style-type: none"> <li><u><a href="#">California Department of Public Health Compendium of Surveys "Network Youth Survey"</a></u> (English: Pages 83-93, Spanish: Pages 94-100)</li> <li><u><a href="#">California Department of Public Health Compendium of Surveys "Network High School Survey"</a></u> (Pages 83-86, 100-107)</li> </ul> </li> <li>Taste Test survey that assesses identification of food, willingness to try it, prior exposure at home and school, in home or school garden. <u><a href="#">Garden-based Education in School Settings</a></u> (Pages 182-188)</li> <li>Recommended tools for 3<sup>rd</sup>-12<sup>th</sup> grade students on fruit and vegetable consumption, television watching, and activity levels during the previous day (includes separate measures for 7-9-year-olds and 9-11-year-olds): <u><a href="#">California Department of Public Health Compendium of Surveys "Day in the Life Questionnaire"</a></u> (Pages 24-40)</li> </ul>
10.	Students try new fruits and vegetables.	Does your program include opportunities for students to try new produce?	<b>Pre/post-test evaluations</b> of student behavior using surveys.	
11.	Students choose healthier options in cafeteria. <sup>1</sup>	Your program includes healthy food options in the cafeteria.	<b>Pre/post-test evaluations</b> of student behavior using surveys.	
12.	Students consume less of unhealthy foods and sodas.	Your program directly addresses unhealthy eating, not just healthy eating.	<b>Pre/post-test evaluations</b> of student behavior using surveys.	
13.	Students engage in positive lifestyle modifications such as a daily	Your program includes a physical activity component.	<b>Pre/post-test evaluations</b> of student behavior using surveys.	

<sup>1</sup> Note: Achieving this outcome would assist your program in fulfilling the USDA school food nutrition requirements instituting calorie maximums for each age/grade group, sodium limits, and saturated fat limits [Codified under § 210.10(f) for the NSLP and under § 220.8(f) for the SBP], and requiring reimbursable lunches selected by students include a ½ cup of a fruit or vegetable [Codified under § 210.10(e) for the NSLP and under § 220.8(e) for the SBP].

	Outcomes	This may be a fit for your program if...	Measurement Tools: Type	Measurement Tools: Examples
	exercise routine.			<ul style="list-style-type: none"> <li>Recommended tool for pre-post student survey on eating habits and physical activity in the prior week (age unspecified): <a href="#"><u>Healthy Eating Active Living Youth Nutrition and Physical Activity Survey</u></a></li> </ul>
	14. Increased student demand for local produce in schools.	You are evaluating at least one year after starting the program.	<b>Pre/post-test evaluations</b> of student attitudes using surveys.	Tool not yet identified.

