



St. Gabriel School — Edmonton, AB



Reynolds Secondary School — Victoria, BC

“First and foremost, these school gardens will be educational tools. They can provide a tangible, real world contextual element to otherwise abstract ideas. Edible gardens can supplement lessons for every core subject in the majority of grade levels. From environmental science to nutrition, agricultural issues to measuring the circumference of a tomato, the gardens are as versatile as we are creative. Here are a few linkages between the gardens’ potential educational power Alberta Curriculum as found on LearnAlberta.ca.

Mathematics:

The botanical world, at its essence, is pure mathematics. From charting plant growth to measuring the mathematically universal proportions of sunflowers, gardens offer the chance to offer students a real-life context in which to learn mathematics so that it becomes less abstract and more directly relatable.

Gardens may supplement General Outcomes across many grade levels. There are a multitude of ways that the garden can supplement mathematical lessons. Here are just a few examples of exercises for specific outcomes:

Numbers:

- basic equations using plants (ex. 8 peas in a pod, 18 pods per plant = how many peas).

Patterns and Relations:

- at various grade levels, students can graph how plant growth changes over time, or chart how environmental variable can alter plant growth (ex. plant one bean in sun and one in shade to compare growth patterns).
- identify how botanical patterns (ex. a ripening tomato) correlates with specific environmental variables (ex. sun, water, fertilizer, temperature).

Shape and Space - Measurement:

- students can take measurements of the garden's perimeter, volume, etc, and derive central tendency (mean, medians, and mode) from various garden elements (ex. what is the mean number of pea-pods that ripened on a day in the 1st week of June).

Shape and Space - Objects and Shapes:

- students can estimate and measure area for various regular and irregular shapes found in the garden. In later grades they can map 2-D and 3-D botanical shapes in grids.
- students can map out their own hypothetical garden by plotting the position of plants on a grid. From their they can measure number of plants and, with additional provided information (ex. the quantity of food each plant is expected to produce), can create experimental scenarios to determine which garden layout would produce the most food.

Statistics and Probability - Data Analysis:

- students can keep running measurements of changes in garden variables and analyze the data in order to draw conclusions. Students could work in groups to track different variables in order to speculate later on their relationships based on accumulated data.



Mitchell Elementary School — Richmond, BC

"A variety of teachers use the garden for teaching, including Science, Language Arts, and Social Studies teachers. We have found that giving students their own personal gardening tools gives them a sense of ownership and importance in the garden. To each their own gardening glove and trowel!"