



# Teacher's Corner Lesson Plans

*Helping Teachers and Students Make the Most of  
their Outdoor Classroom*

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## How Does Our Garden Grow?<sup>\*†</sup>

Sue Klint

**Grade level:** Grade 1, 2 or 3.

**Provincial curriculum links:** Ontario.

**Subject:** Science; Mathematics.

**Keywords:** Compost, garden, gardening, plants, soil, dirt, growth.

### Description

Students will add organic compost to one group of plants and compare their growth with similar plants that are growing in regular soil, over a period of time. They will record their findings in a science journal and measure and graph their results.

### Curriculum Framework

Science and Technology - Life Systems

Mathematics - Measurement

#### Specific Lesson Goals

To determine whether organic compost affects the growth of plants in an Environmental Garden

### Preparation

**Preparation time:** 1 hour

**Length of lesson:** 30 min. introduction and 15 min. of tracking each week

#### Resources required:

- Compost
- Plants
- Science journals

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<sup>\*</sup>Source of Lesson Plan: Sue Klint. References to Ontario curriculum.

<sup>†</sup>Submitted by: Sue Klint

- Trowels
- Books
- Website (see references)

## Procedure

1. Gather students in garden
2. Observe and discuss plants and how they are growing
3. Discuss what they need to grow (sun, soil, water, nutrients)
4. Discuss ideas for ways we can help them to grow even better
5. Lead discussion towards recycling in the garden (leaves, mulch etc.) and how we recycle in the kitchen
6. Will our recycled organic matter help the plants grow?
7. Let's find out - explain experiment
8. Students will plant a control group of plants with no compost. Two plants for each group of four students.
9. Students will also plant two plants with compost in the hole and mixed with the dirt. The heights of all the plants should be recorded for comparison later.
10. Students will water their plants and watch them grow. At the end of the test period students will record how much their plants have grown.

## Discussion and Questions

- What do plants need to grow?
- What do they get from nature?
- Can people help them? How?
- What makes compost such a good fertilizer?

## Student Evaluation

- Science Journal - observations written and drawn
- Accuracy and neatness of measurement graph
- Oral understanding when presenting findings to another class

## Enrichment and Extension Activities

Use this lesson as a starting point for setting up a school-wide composting program. Students can present findings to other classes, distribute compost buckets, and collect compost into outdoor compost bins. Students can make posters that incorporate the growth charts of their plants or flowers to convince their peers.

## References

Composting for Kids: <http://agglehorticulture.tamu.edu/sustainable/s/ildesets/kidscompost/cover.htm>

The Compost Resource Page: <http://www.oldgrowth.org/compost>

## Books

- Pee Wee and the Magic Compost Heap by Lorraine Roulston (Recycling Council of Ontario)
- Growing Gardens from Your Garbage by Linda Glaser
- All About Compost - Recycling Household and Garden Waste by Pauline Pears