

## 3<sup>rd</sup> Grade Plants Unit

### Unit Overview

**Summary** (Paraphrased from page 1 in STC *Plant Growth and Development* Teacher's Guide & page 9 in Delta Science Module *Soil Science*):

This Plant unit, taught using STC *Plant Growth and Development*, exposes students to the complete life cycle of a plant. The unit features rapid-cycling Wisconsin Fast Plants, which go from seed to seed in 40 days. The unit opens with lessons on observing seeds and brainstorming about what the students already know about plants. A planting activity that stresses following directions and working independently follow the initial lessons. Within the first 24 hours of planting, students can observe the seedlings emerge and begin to record their observations both in writing and by making scientific drawings. Several days later, the students gain experience with two practical gardening techniques, thinning and transplanting, and learn when they should be used.

The unit then shifts to the theme of interdependence and explores the reasons why the bee and the flower need each other. Since interdependence is such an important concept, students work with it in several different ways. They cross-pollinate their own plants using real bees on toothpicks.

Within the unit students are also introduced to the world beneath their feet—the world of soil. Students compare and contrast various types of soil. They place samples of soils in tubes of water and allow the particles to settle into different layers. Students study the different components that make up soil and learn how they are formed, as well as how soil is formed.

Throughout the unit students are encouraged to make frequent observations of their plants using as much sensory information as possible. Students continue to record these observations through writing and drawings. They also quantify their observations by taking frequent measurements and recording these on growth graphs. Finally, the students harvest and thresh their “crop” and determine their yield.

#### **Essential/Unit Questions:**

1. Why is it important to follow directions and keep accurate records of one's work?
2. What is the pattern of growth of plants?
3. What is the life cycle of plants?
4. What is the relationship between flowers and bees and why is this important?
5. What makes up soil? Where do the parts come from?