

## SPECIALTY STRUCTURES

### **Greenhouses**

A greenhouse at a school can become a place of magic. It is not the structure of wood, plastic, or glass that is the magic, but rather what takes place within. Many different kinds of plants will flourish under the controlled environmental conditions of a greenhouse.

Outdoor gardens are subject to the mercy of the climates in which they exist. They depend on the weather for heat and light and are bound by seasonal timing for flowers to bloom and vegetables to grow. In a greenhouse, these seasonal limitations largely disappear because temperature, humidity, and ventilation are controlled. With lights even the length of the day can be extended. A school with a greenhouse is truly fortunate.

### **Sources**

How can a school acquire a greenhouse? Several schools in San Diego County have greenhouses that were built by 4H, PTA parents, or a local Boy Scout troop looking for a community project. In a middle school or high school, the industrial arts department may assist in a greenhouse construction project to challenge advanced and creative students. When selecting a place for the greenhouse, make sure the site is not in an area designated for future classroom expansion.

### **Plans**

Basic greenhouse plans are available in many gardening books and at some “do-it-yourself centers”. Greenhouse selection depends on several factors: size, orientation, location, and intended use. Of course, the big factor is the amount of money available for its construction.

### **Structure**

The structure need not be complex. A simple wood frame covered with a clear or translucent plastic, a method of ventilation, and a door is all that is required. Translucent plastic panels are recommended. They are less expensive, easier to repair, and less subject to breakage than glass. A heater may not be required unless you are in an area where the temperature drops to freezing. High daytime temperatures and low humidity can be controlled with a ventilation fan and misters.

### **Propagation**

A school greenhouse increases the planting season opportunities for students. It can be used to get a jump on the planting season. Seeds can be started at any time of the year. Summer flowers and vegetables planted from seed in mid-winter will be well-established plants for transplanting out-of-doors when the weather warms up in early spring. The greenhouse may also be used for growing vegetables to maturity. Imagine picking a fresh tomato in the middle of January! A greenhouse is an ideal location for a hydroponic system and can also be used to propagate plants from cuttings.

One aspect of greenhouse gardening that may appeal to some students is the ability to grow exotic plants with beautiful foliage and exquisite flowers, such as orchids, that will not do well without a controlled environment.

Greenhouses also have their downsides: initial construction costs, ongoing expense for utilities, and staff time required for maintenance and management.