# DESIGN ACCESSIBILITY FOR PHYSICALLY CHALLENGED CHILDREN AND ADULTS

#### Introduction

Plan the garden so that it may be easily accessed and used by children and adults with all types of physical challenges. Paths to the garden must have a firm smooth surface so that persons using wheelchairs, walkers or crutches may travel to the garden. A level path without steps is best. If the access route is on a slope, ramps must be graded in accordance with standards in the Americans with Disabilities Act (A.D.A.).

Paving material should allow for good traction. If the garden is fenced, gates must be wide enough for easy access and equipped with A.D.A. approved latching devices. Designers should consult with the school district's facilities department for assistance with A.D.A. regulations. Plan paths inside the garden wide enough to allow persons in wheelchairs, on crutches or using walkers to move around. Three feet is considered minimum width for one-way traffic. Four-foot wide paths will allow wheelchairs to make ninety-degree turns. Five-foot wide paths will allow wheelchairs to make one-hundred-eighty-degree turns without backing up.

Curved designs make paths easier to use. Edge guides help keep wheelchairs, canes, walkers, and crutches from going off the paths.

Incorporate a sensory garden into the garden design. This allows visually impaired persons to enjoy fragrances, shapes, textures and tastes of fruits, vegetables, and flowers.

Here are structures to make gardens more accessible to the physically challenged:

### Raised Beds

For access from a wheelchair the optimum bed should be twenty-four inches high. To avoid awkward reaching keep the beds narrow as depicted in Figure 1. Twenty-four inches from edge of path to center of bed should be considered the maximum reach distance. Specialized tools to extend a person's reach are available; however, young children may have difficulty manipulating these tools. Length of the beds may be any convenient size.



Figure 1





These photos show examples of how raised beds may be constructed to allow good access from a wheelchair.

#### **Containers**

Many different styles of pots and boxes offer a way to bring the garden up to the physically challenged child or adult. Containers often used in school gardens are large flowerpots, strawberry jars, one-half barrels, plastic tubs, wooden boxes, and raised planting tables. Window boxes also give students opportunities to garden from a seated position inside a room while allowing plants to grow outside. When filled with a good planting mix containers make excellent growing spaces.



The containers on either side of the raised bed are high enough to provide good access from a wheel chair.



If the containers are smaller, and cannot easily be reached from a wheelchair, place the containers on potting tables that are built high enough to allow wheelchair access.

## **Vertical Growing Spaces**

Trellises, fences, tepees, wire mesh frames, netting on frames, and circular wire enclosures make good structures to grow vegetables, fruits, and flowers vertically where physically challenged persons can have easy access to them. They are also a good way to maximize the use of limited growing areas. Figure 2 shows an easy to build, free standing trellis.

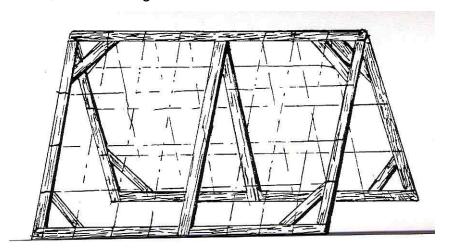


Figure 2

#### A-frame Stand

A square or rectangular planting box approximately six to eight inches deep mounted on two A-frame standards is an excellent workstation for wheelchair gardening. The wheelchair can be rolled up to the planting box with the knees underneath. Another advantage is that the unit may be used from both sides. See Figure 3 for a view of this stand.

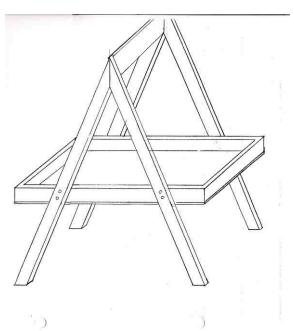


Figure 3