



GARDENING FOR CHILDREN

Children can be involved in the planting of any trees and shrubs selected for the play area (see next section below) but they will also enjoy learning from participating in planting, tending, watching things grow, and harvesting fruits or vegetables from beds set aside for their own seasonal gardening. A bed for active gardening can be the focus of much outdoors learning and enjoyment. Choosing a suitable part of the site will depend upon the types of plants to be grown, but a well drained, sunny position will offer the most choice and is preferred by many flowers, vegetables and most herbs. Choose plants:

- ◆ which are easily grown;
- ◆ have a quick growth cycle so that children see the fruits of their labour quickly;
- ◆ which produce their fruits or flowers during the term, and which
- ◆ can be shared or enjoyed by the whole group.

Suggest peas, radishes, pumpkins, climbing beans

There may be potential for conflict between children's gardening activities and digging. The survival of the plants in garden beds may be at risk if too much digging goes on close by. A digging patch separated from the garden bed may thus be necessary if both are in demand, and if there is sufficient room in the yard.

Gardening indoors and on verandahs

Gardening and growing things need not be restricted to the outdoors. Sprouting beans and peas, growing green 'hair' or 'fur' on seeded forms, and other experiments indoors or on the verandah can be exciting, even if there is a shortage of outdoors space. Pots and raised beds allow the active involvement of disabled children and these can be located either indoors or outdoors. Associated activities such as the collection of compost and the study of worms and other soil improving organisms are also valuable learning experiences.

PLANTS FOR PLAY AREAS

Plants create a living environment which has constant potential for change, and which offers a foil for the harsh man-made environments which are found increasingly in urban settings. They attract other living things such as birds, butterflies and other insects and enable children to observe and learn about nature and other living creatures.

The form of plants can suggest certain behaviour and designers can use these qualities to achieve their goals. For example, weeping plants have a calm, restful appearance which may suggest quiet activities in a corner space.

Plants have a wide range of sensuous qualities which are discussed below. The lists could be expanded infinitely, as only a few examples have been offered here.

Many of the qualities of plants discussed below are usually easily available only to able-bodied children, who may, for example, be able to climb a tree or to wander amongst uneven terrain to pick flowers or leaves. Many disabled children have never had these experiences and it is

therefore important In children's centres that the interesting qualities of plants are made available and accessible to children with disabilities in which ever ways are possible and appropriate, such as the following small strategies for making nature accessible to children of all abilities:

- ◆ planting suitable trees and shrubs in accessible places;
- ◆ gathering loose leaves, flowers and fruits from elsewhere, and taking children on excursions to interesting gardens, and
- ◆ raising garden beds for gardening from wheelchairs or other mobility aids.

Textures

Plants offer endless variety for touch:

- ◆ soft foliage to brush against: decorative grasses (*Pennisetum alopecurioides*), native forest oak *Casuarina forulasa*;woolly tea tree (*leptospeffnum lanigerum*);
- ◆ leaves with furry textures - lambs ear (*Stachys lanata*);
- ◆ leaves with a sticky feel - sticky wattle (*Acacia howittii*);
- ◆ bark to rub or peel off - prickly paper bark (*Melaleuca styphelioides*); mexican pine (*Pinus patula*);
- ◆ the smooth bark of many white gums (eg *Eucalyptus scoparia*);
- ◆ fruits with different textures - papery honesty pods, hairy kiwi fruit. smooth passion fruits and rough casuarina pods;
- ◆ leaves that are shiny - mirror bush (*Coprosma repens*). and the new shoots on some eucalypts, and
- ◆ the jelly-like insides of succulents - pig face, coprosma, cactus and the like.

Smells

Many flowers, foliage, bark and roots have perfumes (and odours) which emerge as you:

- ◆ crush their leaves - lemon scented gum (*Eucalyptus citriodora*), lemon scented tea tree (*Leptospermum petersonii*) and *Prostanthera spp*;
- ◆ walk on them : camomile or thyme lawn;
- ◆ or brush past them lavender especially, nasturtiums, scented geraniums, mints and other herbs, not to mention
- ◆ the many scented flowering plants such as gardenias, boronias and daphne, pittosporum, asmine and honeysuckle which send clouds of perfume around the yard.

Careful use of scented plants may be used for orientation by children and adults with visual impairment, but ensure that a riot of perfumes does not confuse.

Sounds

The whisper of wind in pines. casuarinas and cypresses, the clack of seed pods against each other (*kurrajong*), the pop as pods or buds explode, (*moon flower, cup of gold vine*), the rattle of loose seeds in pods (*acacias, gourds*), the crackle of dry leaves in autumn (*plane trees etc*) and the

whistles that can be made from gum leaves and bamboo shoots are all evocative sounds which create interest, and can be used in a children's centre.

Shapes and forms

There is endless variety in fruits, leaves and flowers to provide a constant supply of objects for nature study, art works and other creative activity and as props in children's play:

- ◆ the spiral of new fern fonds;
- ◆ fruits with interesting or amusing shapes, mountain devil (*Lamberia spp.*), nasturtiums, blackeyed susan, gum nuts (*such as on eucalyptus ficifolia and Elehmanii*), winged seeds (*elms*), fruits of *Eucalyptus torquata* and *torulosa*, dried *Agapanthus* heads, and many others;

- ◆ bud caps from many eucalypts *Eucalyptus lehmannii* and *Eucalyptus globulus*, and
- ◆ leaves of every kind.

Colour

Colour has potential to create interest and seasonal change all year round in a play area. The autumn colouring in leaves of deciduous trees, (*pin oaks*, *liquidambers*, *golden ash* *japanese maples*, etc) and of flowers throughout the year, are obvious ways of providing great interest and delight. The colours of tree bark and of new leaf growth, the browning off of grass in summer and the new greens of spring are more subtle signals of seasonal change in environments where deciduous trees are not a major element.

Colour can be used for specific purposes:

- ◆ yellow/gold foliage can brighten a dull or dark corner;
- ◆ winter flowering or foliated plants can be important in cheering up a dark wintery scene, such as *gordonia* (*Gordonia axillaris*), *chinese star jasmine* (*Trachelospermum jasminoides*), *daphne* (*Daphne odora*), *hairpin banksia* (*Banksia spinulose*), *evergreen dogwood* (*Cornus capitata*) and many others;
- ◆ plants flowering at different times of the year draw attention to different parts of the yard, and
- ◆ trees and shrubs which drop their flowers or petals (*Gordonias*, *camellias*, *jacarandahs*, etc) can create a beautiful coloured carpet for children to collect, to play with, to walk over, or simply to look at.

Plant survival

Children's environments can be difficult places for plants - especially small, full-day care centres where there is continuing pressure on every inch of space for most of the year. The task of choosing plants for such environments is difficult, as all the qualitative aspects of plants for play, mentioned above, need to be weighed up against the chances of a particular plant surviving the variables of soil, climate possible lack of maintenance, and the children's activities.

The overall suitability of the plant to the local soil and climate, as well as to the microclimate of the actual position in the yard (i.e. sun and shade, drainage, winds) is a primary consideration.

Hardy plants which will survive a dry spell and poor soil, and which will not die if a child breaks off a limb, hangs from a branch, or carves into the trunk, need to be sought out. The selection of durable plants which are not brittle, and which have some means of regenerating themselves after damage, becomes very important in these centres. Plants which are often considered undesirable because of these habits become extremely valuable in children's centres for the very reason that they sucker, are very vigorous, grow from seed easily, etc.

Some hardy plants which seem to survive a range of climatic, seasonal and moisture conditions, as well as the onslaught of children include: *casuarina* especially, *marguerite daisy* bushes (*Chrysanthemum frutescens*), and *mirror bush* *Coprosma repens*.

The survival of many plants will depend upon the quality of care they receive - most will need some form of watering, weeding, fertilisers or pruning at some stage during the year. As many centres are run by voluntary committees, and staffed by employees with little time for extra tasks, it is unlikely that a high standard of plant care can be expected unless these groups have a personal interest in gardens. Parents or friends with expertise in gardening could be sought out and enlisted to assist. Some centres routinely rest their grass and planted areas. Plants with high maintenance requirements will be placed at particular risk during the hottest months over summer, when some centres close down. Plants in pots and containers will likewise suffer without water. The installation of automatic watering systems and heavy mulching to prevent weed growth and water loss are both recommended.

Protecting plants from trampling

Compaction around the roots is a major problem for plants in children's centres, preventing the plants from accessing air and water in the soil, hampering growth and leading to their eventual demise. A low fence or barrier installed between the roots of the plant and the play area, may help to prevent such compaction. Planting into raised beds may also deter children from running across the planted areas. Substantial temporary fencing, for at least the first two years will help plants to become established.

Using planting in a play area design

Many desirable qualities in individual plants for children's play and learning have been briefly discussed above. Groupings of plants can also contribute to the overall character of a play environment, defining spaces for particular purposes and creating a 'green' framework in which different activities will occur.

Use plants to:

- ◆ divide activities which are best separated from each other (eg a busy active area from a quiet space), preferably using low to medium height shrubs over which staff can see children (maximum 1 meter);
- ◆ create small spaces for children's hiding or retreat areas (see a later section on dividing space);
- ◆ create a thicket which is an exciting area for cubbies when partially hollowed out;
- ◆ provide small-scale climbing in active areas, if space permits;
- ◆ screen off an unattractive fence or wall;
- ◆ create a wild "jungle" area;
- ◆ create a green "tunnel" for children to run, crawl or wheel through;
- ◆ attempt to lessen noise and dust from busy roads;
- ◆ provide shade and shelter from wind;
- ◆ provide a backdrop and source of loose play materials to sand or water areas;
- ◆ attract bird and insects, and
- ◆ replant indigenous species where appropriate.

Watch for:

- ◆ plants which irritate asthma and hay-fever sufferers. Privet (*Ligustrum species*), some grosses, and some melaleucas such as *M. styraciflua* can be particular problems;
- ◆ plants which irritate the skin, eg scarlet rhuss, some grevilleas, the "itchy" seed pods of Norfolk Island hibiscus (*Lagunaria patersonii*) and plane trees (*Platanus orientalis*);
- ◆ plants with toxic parts;
- ◆ plants with sharp thorns. spikes or branchlets (eg roses, bougainvillea, hakeas, berberis);
- ◆ plants with small fruits, which babies are likely to place in their mouths and noses;
- ◆ trees which drop limbs eg river red gum (*Eucalyptus comaldulensis*), lemon scented gum (*Eucalyptus citriodora*) and spotted gum (*Eucalyptus rnaculata*), and
- ◆ do not plant climbing trees where there is a hazard underneath, such as a concrete path or fence.

Small spaces/ secret places

Small and 'secret' spaces play an important role in the play of young children. They are particularly important for:

- ◆ providing privacy in centres where children spend long days with a large group of children and where there are often few opportunities for solitude;
- ◆ giving children an opportunity to create their "own" space into which they can bring familiar materials and objects;
- ◆ providing somewhere for two or three children to play quietly together;
- ◆ providing somewhere for a quiet small group activity such as reading, and

- ◆ providing an area for a small group to eat out of doors.

Many of the ideas suggested below for dividing up a play area can be applied to creating such small spaces. The spaces can be quite tiny and can give very small children a sense of being completely hidden, even though an adult can easily supervise them. It is important that children with disabilities also have access to such spaces, to the activities, and to privacy. Staff may have to ensure either that all children can reach such spaces, or that areas which are accessible can be provided with materials and companions for play, creating the desired qualities of Intimacy, privacy, familiarity etc. at appropriate times. Loose materials such as cardboard boxes, built cubbies, small planted areas with weepy shrubs, arrangements of logs or sleeper seats, and spaces under decks can all be used for these purposes. A basic framework against which children can prop their own “building” materials (e.g. of cloth and cardboard) provides some structural support but allows for change. Sometimes a small focal point such as a low “table” or “seat” made of a round cut from a telegraph pole, or a low smooth rock placed in a small space, will enhance the play possibilities of a small space.

Cubbies

'Cubbies' are generally small enclosures either provided by adults or created by children themselves. A range of play activities takes place in them but most often they are used for role-play/dramatic/fantasy play, and provide associated social, cognitive and language development. Children of different ages will use cubbies in different ways, from two year olds who will usually play alone or parallel with other children, to four year olds who play co-operatively in groups of up to four children and are at the peak of dramatic play activity.

The play value of cubbies is maximised when:

- ◆ a good choice of props and loose materials is available for use in and around them;
- ◆ they can be changed at will by children themselves, and
- ◆ the setting immediately surrounding the cubby facilitates an extension of the play. For example, nearby trees and shrubs, logs and sand might all be used in the play which is based on the cubby.

Four different ways to provide for cubby-type play are described here. There are no doubt others. Each will be used in different ways by different children, and a choice is beneficial. It is important to recognise the different functions and benefits of the various settings described below. Even though one of the purposes of cubbies is to provide hiding places for children, staff nonetheless need to be able to supervise the play.

Lean-to Cubbies

These “gunyah-style” constructions are built by the children, perhaps with the assistance of staff, out of various loose materials in the playground, such as pieces of cardboard, cloth, branches, grass clippings etc. The processes of construction and change are important as well as the play in the cubby. A fence, wall, tree trunk or other backdrop is useful to both provide physical support as well as enclosure and privacy.

Built framework for additions by children or staff

A timber or steel framework can be useful for draping cloth, tarpaulins and parachutes over.

Permanent built cubbies

Many early childhood centres have built cubbies or forts in the playground. Often these combine some kind of elevated platform and climbing apparatus such as a rung ladder to reach the top, and may have a space underneath. Because of their height they need to be located on impact absorbing surfaces.

There is a risk that this type of cubby confuses two types of play which are not always compatible:

- ◆ if children want to use their “props” on the platform they have to struggle up a ladder or net with them;
- ◆ climbing and busy physical activity may intrude and conflict with the role -play activity, and
- ◆ the space under the decks is often the most used part of such forts but this is not always ideal unless it has some of the characteristics mentioned above.

Built cubbies at ground level can relate well to sand pits, providing a dramatic play setting to which children will enjoy bringing sand. This needs to be sited and managed in such a way that the sand is not a nuisance. Such a cubby could be built at one end of the sand, for example.

The appropriateness of built cubbies depends upon the type of children's centre. In an occasional care centre a built structure without changeable elements may be ideal for a few hours play per week for any one child. However, for children in the same centre for long periods of time it is very important that there are opportunities for them to create their own cubbies.

Cubbies amongst planting

Hedges and thickets provide wonderful enclosures for children's cubbies when hollowed out to enable one or more child to play inside. These provide opportunities for each generation of children to discover the hideaways for themselves, and loose materials can be brought inside. Weeping shrubs also create hideaways underneath. Some plants which drop needles (such as pines and casuarinas), are also useful as a supply of cubby - making materials. Older children use them to create outlines of cubbies on the ground to symbolise rooms.

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