

Narrative to the Concept Plan

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The Nature Explore Program is a joint effort of Arbor Day Foundation and Dimensions Educational Research Foundation in collaboration with organizations such as The U.S. Forest Service, U.S. Fish and Wildlife Service, American Society of Landscape Architects and many others who are committed to re-connecting children with nature.

This concept plan has been developed based on field-tested, research-based principles for creating effective spaces that support children's interactions with the natural world.

As seen on page 5 in the Learning With Nature Idea Book, the concept plan divides the areas into the following categories: entry feature, open space, climbing and crawling structure, messy material area, building area, nature art area, music and movement area, garden and or pathway through plantings, gathering area, storage area, sand area and water area.

The space is divided into distinct areas that allow individual and varied learning styles to take place. By providing a complete mix of activities, children with a variety of needs and learning styles are engaged.

By keeping areas separate, behavioral issues are reduced. This concept plan has been developed based on research-based, field-tested principles for creating effective spaces that support and enrich children's interactions with the natural world.

Following are brief descriptions of each of the areas in the plan as they appear clockwise on Jim Wike's concept plan.

Entry Feature

The entry to the outdoor classroom should have a visual cue that lets children know they are entering a special place. A wooden arbor and gate were discussed. Ideas such as adding willow to the arbor and fence may give it a distinct character.

Keep in mind that scarves and fabric may also be tied onto the arbor for a study of the pattern of the wind or to create a mystical feeling upon entering the space.

Pizza paver boxes make wonderful flooring and also add character as each class may create their own paver. The history of Edward 'Babe' Gomez and the Hispanic population can easily be displayed in the pavers.

The ground surface could also be stamped concrete with beautiful images of leaves from trees located in Nebraska. Children are encouraged to develop close observation skills by looking for patterns in nature.

Animal footprints that are native to your region may also be incorporated in the concrete. These native components help tell the unique story of where the Gomez Heritage children live.

Located in the middle of the stamped concrete could be a nautical symbol representing directionality. This symbol, imbedded in concrete with native stone, may also be placed in another location on the grounds.

All pathways in the Nature Explore Classroom lead to the entry place and then the gathering space. Next to the entry space could be a display board where information about the outdoor classroom is posted, as well as messages about recycling.

This is also where the sign designating the site as a certified Nature Explore Classroom will be displayed.

Another use for the display board could be to post children's drawing of birds recently spotted in the space, or children's photographs or drawing calling visitor's attention to the separate areas in the outdoor classroom.

Gathering Area

The space directly south of the entryway will be designated as a gathering area. This area is a wonderful location for teachers to gather their students to orient them to the outdoor classroom.

This area lends itself nicely to a beginning and an ending location while teachers gather students as they enter and exit.

Five benches are located around the perimeter. Benches could be constructed from trees in the area so that children can become familiar with the beauty of different varieties of woods.

If timber is not available, or donors prefer to purchase benches, the Nature Explore Sourcebook offers two sizes of benches on page 14.

The area could include a storage bin (page 20 in the Nature Explore Sourcebook) where a few books, laminated for outdoor use, may be stored.

Suggestions for books or sections of books include: short picture books on bees and butterflies geared to younger children; short books written by children that tell the stories of the trees in the space; and laminated pages from insect or tree identification guides for older students and adults.

The flooring of the gathering area is made of Engineered Wood Fiber which is a type of mulch that allows for cushioning from falls as well as easy transportation for those in wheelchairs or with canes or crutches.

Messy Materials Area

The Messy Materials Area has two small shade trees at the entrance and the space is bordered by sections of 4 to 8 foot long natural logs. The surfacing is mulch or wood chips, at least 12-18 inches deep.

Use wood chips or mulch that come from trees without thorns. Make sure the mulch is dark in color and has lost it's shade of green.

This area should also include sections of cut trees (“tree cookies”) and small pieces of branches for children to manipulate. One larger log section could be placed in the middle of the space to allow for sitting and standing as well as a fulcrum for structure making by building and stacking.

See pages 4, 12 and 13 in the Learning with Nature Idea Book and page 9 in the Nature Explore Sourcebook for ideas.

A Messy Materials area is important for children as they have little opportunity to “be messy” in today’s aseptic environment.

This area encourages a safe place where children may interact with dirt, pine needles, pine cones, tree cookies, leaves, branches and stumps.

This interaction allows total uninhibited creative play and imagination. It also provides the opportunity for personal mastery over the environment as they manipulate heavy objects and move them through space.

In addition, children with sensory integration challenges excel in this area as they gain self-control and relaxation as they are given opportunities to use large muscles to dig and carry heavy objects.

Music and Movement Area

The Music and Movement area is located on the east side of the Messy Materials area and directly north of the Open Area.

The stage is handicapped accessible as the back of the stage is flush with the ground and the front of the stage has one step that allows for easy access and additional seating.

The stage is placed close to the Open Area to allow for large motor movement as children express themselves through creative movement. An Akambira or Marimba (Nature Explore Sourcebook, pages 24 and 25) was suggested as they are tuned and will not cause sensory overload as they are set to the C scale and the Akambira is pentatonic.

Other instruments such as rain sticks, a Bongo Cajon drum, gourds and wind chimes were suggested.

Creative expression through movement with scarves was also discussed (page 24 in the Nature Explore Sourcebook). A storage unit (see page 20 in the Nature Explore Sourcebook) houses musical instruments and scarves when not being used.

Open Area

The open lawn area is the largest open area in the outdoor classroom which allows for full bodied, gross motor activities. The area has two small hills of higher elevations than the Music/Movement area which allows for audience seating.

The first hill has a shallow grade increase to four feet on the north side. The south side of the first hill has a steep decrease. The second hill is smaller and increases only to three feet. The north side is a shallow increase and the south side is a steep decrease, as well.

The grass may be kept by the children and each area sectioned off for different groups to take care of. A push lawn mover for children was discussed as a way of allowing the children to take ownership of the lawn in the open space. The openness provides for such activities as running, jumping, dancing and both structured and unstructured physical contact.

Building Area

The surfacing for this area can be natural “tree cookie” flooring. (See page 21 in the Nature Explore Sourcebook). If these tree cookies are created locally, they should be thoroughly dried before installation so that they won’t shrink and come loose. They should be installed in a polymer base.

Directions for tree cookie installation are available in the Sourcebook section of the Web site at www.arborday.org. Children can build with both organic blocks and geometric blocks made from a variety of types of woods (see pages 20 and 21 in the Nature Explore Sourcebook).

The geometric blocks may be built by local craftspeople. Note: The organic blocks are more difficult to build in a way that makes it possible for children to actually stack and balance them, so it may be more cost and time effective to order these.

A small discovery table with a raised edge (page 23 in the Nature Explore Sourcebook) can provide another surface for building. This could be ordered or built locally.

A storage unit is located in the north side of the area and is valuable for both storing blocks at night as well as for an additional building surface.

A note about the polymer used for the tree cookie flooring: use commercial or landscape grade polymer which is approximately \$30.00 per bag.

Nature Art Area

The flooring of the Nature Art area may be local stone, especially if local donations can be secured. The Nature Art table (Nature Explore Sourcebook, page 11) contains pockets that can hold a variety of natural materials from the space (such as pinecones, seed pods, seashells, rocks, etc) that may be used to create patterns and mosaics as temporary works of art.

You may want to add a small picnic table to this area. A picnic table can serve double duty as both a place that children could sit to sketch or sculpt the flowers, trees, birds, bees, etc. observed in the space, and also a place to gather children.

A storage unit (for holding art supplies such as paper, colored pencils, water color pencils, water colors, oil pastels and colored modeling clay) is indicated. (See page 8 in the Sourcebook.)

Suggestion: Also include laminated color photocopies of environmental art from Andy Goldsworthy books such as Wood. Laminated photos of famous artists' paintings and drawings of flowers, trees or butterflies could be mounted on the storage cabinets for inspiration (or stored on shelves in the storage cabinets).

Pathway

Through Plantings

The pathway is located on the south side of the Outdoor classroom and winds behind the Nature Art Area and the Building Area which provides a behind the scenes feel for children discovering in the outdoor classroom.

The flooring consists of engineered wood fiber and the path varies in width as it winds throughout the classroom. Plant material may consist of varying colors, textures, heights, scents and tastes. Visually porous or open headed plants such as ornamental grasses and woody plants aid visibility and therefore increase safety.

It is important for the pathway to create a multi-sensory experience where children can taste, smell, touch, see and hear different plants.

It works well placing different plant together such as placing herbs with sunflowers, vegetables and fruits.

A pollinator section may also be added to attract butterflies, bees and other natural pollinators. Varied textures, shapes and patterns, bloom time and color should be added.

Some of the plants or native grasses chosen for the pathway should have some height to them so that they create a “Secret Garden” sense for children walking the paths.

(See pollinator garden information by visiting www.nappc.org/curriculum/intro.php)

Christina Hoyt at The Statewide Arboretum www.arboretum.unl.edu is a wonderful resource as she will counsel you on what plant to place in your outdoor classroom.

Climbing/ Crawling Area

A series of 5 feet in diameter, modular platforms will eventually create the climbing/crawling structure. (See page 18 in the Nature Explore Sourcebook for building plans for the platforms). A handicapped accessible ramp and a separate set of steps enter from the Open Area and ascend onto a 6 inch platform where platforms of varying heights verge and extend.

The platforms vary in height from 6 to 18 inches and all sizes are ADA acceptable. Also on page 18 in the Sourcebook are pictures of vertical and horizontal pine railings that can be added to the platforms.

Children can drape fabric over these railings to create and re-create “rooms” in the tree house, a valuable visual-spatial activity. These railings could also be made from interesting branches secured from local trees.

As with each specific area in the outdoor classroom, building is a process that may be continued over several years. The climbing structure may begin with only a platform and a ramp and will evolve in the future.

A storage unit located in the southwest corner of the area can hold the brightly colored, durable fabric located on page 18 of the Nature Explore Sourcebook.

Greenhouse

Eventually, a greenhouse may be added to the extreme west side of the outdoor classroom behind the south side of the preschool building.

Dirt Digging Area

The digging area includes two raised planter bed filled with dirt, plant materials and worms that may be used for digging or planting (Nature Explore Sourcebook, page 27.) It is important to remember that the worms need to be fed in order to survive. The children may participate in feeding them by putting raw fruits, vegetables, dead headed flowers and peat soil into the raised beds. Tools for digging (page 27 in the Nature Explore Sourcebook) could be stored in a storage unit located next to the area.

Sand Area

The sand digging space may be either shaped like an “L” and open to the air or encompassed in a kiwi hut. The kiwi hut should be built around the ground level sand box.

The sand may be raked at the end of the day and the awning pulled down. This helps to reveal evidence of creature activity as well as to decrease sand maintenance. (See emailed picture of “kiwi hut”)

Water Area

The water area consists of a water feature with a five gallon re-circulating bucket that attaches to a hand pump and forces water through physical manipulation. The feature is surrounded by a wooden trough and stands atop a wooden fiber floor. A storage bin may be placed within the water area for tools used in water play.

The water area is essential as it offers a calming and cooling element for the children who need to develop further sensory integration. It is also a wonderful feature for those who are without sight or hearing as water increases the kinesthetic sense of wonder.

Fencing

A curvilinear line divides the outdoor classroom from the soccer field. A fence follows the curvilinear line and connects with the existing fence on the east side of the outdoor classroom. The fence also connects with the arbor at the entrance and then continues in a wave like pattern along the sidewalk. It may consist of varying fence materials such as chain link and willow.

If the willow fence is used, it may be necessary to wind PVC pipes throughout the top and bottom of the fence to provide additional support for soccer balls and rough play. Natural plant materials may grow along the entirety of the fence to provide sensory information as well as add aesthetics.

We also discussed adding history to the fence and letting the children create a mural of their culture or of the story of Edward Gonzales. This mural may be painted or created with stained glass, tiles or stones.

Rain Swale

A rain swale is a shallow depression in the earth that allows rain to accumulate and then drain naturally. The swale will be located along the west side of the outdoor classroom beginning at the entrance where the pop up's already reside. The rain swale will begin under a small bridge located in front of the entrance arbor.

It then meanders in a curvilinear line among garden pathways and underneath four additional bridges until it finally runs down the south side of the hill.

A Note about Plant Materials

Divisions between areas will often be provided by low plant materials (chosen as much as possible for their ability to attract pollinators.) This, in effect, helps the entire space to serve as a pollinator garden.

The more diversity in the choices of plant materials, the more educational value there is for children.

Varieties of textures, colors and shapes in the plants provide opportunities for texture or color scavenger hunts, etc. The variety of trees in the space will provide opportunities for children to learn the stories of the trees in this region.

A number of engaging educational experiences can be built around these trees.

A Note about Signage

Photos of the children using the space in positive ways should be taken, laminated and posted in areas. For example, a photo of children building could be posted on the storage cabinet in the Building Area, or a photo of one of the mosaics created in the Nature Art Area could be posted in the Nature Art Area (See pages 14 and 27 in the Learning with Nature Idea Book for examples of these photo signs.)

Another idea is to have local woodcarvers create signs based on children naming the areas. Children could also be enlisted to create signs that label trees or plants throughout the space. Signs could contain both children's drawing and writing. The creation of these signs may become a yearly event so that the signs change frequently.

A Note about Maintenance

Plants may be chosen to require as little maintenance as possible. As plants and trees are becoming established during the first year, they will require more care, but once established they will need little or no special watering. Your local plant nursery will be able to advise you as to how much water these plants may need for the first two years of their growth.

The “loose” materials in each activity area can be stored in cabinets that can be latched open during the day and locked at night. During times where there is high visitation someone will be needed to open and close these each day, you may choose to lock the storage during the weekends. The Marimba and/ or Akambira should be permanently installed in concrete. Educational programming for younger children:

Sketching

Encourage close observation skills by asking children to sketch the most beautiful flower or tree they can find.

Photography

Give students Polaroid cameras (available through a grant program) and ask them to take close-up photos of beautiful details, or to photograph trees, etc. from unusual perspectives.

Map-making

Encourage children to walk the pathway through plantings then draw a map of their walk. Or, encourage children to map the entire space.

Music-making and dancing

Encourage children to create “bee” music on the marimba, or to create a “tree dance” and move like the trees in the space.

Educational programming for older children

Group Challenges: Example: Demonstrating the life-cycle of butterflies in multiple ways. Students could be divided into three groups – one in the Building Area, one in the Nature Art Area, and one in the Music and Movement Area.

Each group could be asked to demonstrate the life-cycle of a butterfly by either creating a group building project out of blocks, a group art project out of clay, or a group dance/and or song.

Planting Plans

Students could create planting plans each year for the pathways through plantings and write about why they chose the particular plants, flowers, fruits or vegetables for their plans.

Writing Stories

Students could write the “stories” of each of the trees in the space. This could be done as both non-fiction and fiction exercises. These stories could be laminated to create outdoor books that visitors may enjoy.

NOTE: There are “Nature Explore Club” materials for educators (and for families and groups) that could be used in your space. These are available through the Nature Explore Sourcebook.

There are also a series of workshops that give ideas for using the Nature Explore Classrooms and supporting children's learning with nature. Ideas for special events for community members and outside visitors: - Performances by dance groups - Performances by a variety of musicians - Nature Art shows with displays of art created by both children and local adult artist.