



Introduction

A LOOK AT LEARNING

Much has been written in recent years about the importance of learning in early childhood. The trend pushing for earlier and earlier academic learning is one result of this attention. In response, the National Association for the Education of Young Children (NAEYC) has revised its position statement for developmentally appropriate practice in working with young children. This position emphasizes the importance of planning opportunities to foster learning. Young children learn through direct, hands-on manipulation of their environment and a great deal of repetition. They learn best if they are at play and the learning emerges as a by-product of that play. You can enhance the learning environment by asking questions, making associations between the known and unknown, and stimulating interest and curiosity through the toy selection and activities offered. You don't, however, need a constant flow of new toys. Often, reorganizing or adding to familiar toys and activities reawakens a child's interest in them.

The items described in this book are intended to be used in play—and in that sense they are toys. But these items also provide stimulation for major developmental and learning processes. The many skills that are involved in this growth and development process are often grouped into the following six broad areas:

Physical and motor development skills are learned through the body and include large (gross) and small (fine) muscle movement.

Sensory perception development skills use the five senses, alone or in combination, and are crucial in learning to recognize and distinguish everything around us.

Social and emotional development skills deal with feelings, getting along with other people, understanding oneself and one's community, and being able to help oneself.

Cognitive development skills are those learned through the mind and include all the "thinking" skills, such as reasoning, problem solving, understanding basic concepts, organizing processes, math, and science.

Language and communication development skills include communicating without words, such as a baby's smile or a toddler's point. These skills also deal with verbal language skills and prereading skills.

Approaches to learning development skills add the dimension of some intangible elements of "spirit" or aesthetics to the cognitive and sensory processes that are involved in imagination, artistic or dramatic appreciation, and dramatic expression.

All of these skills are referred to frequently throughout *Learn and Play the Green Way* in the "What They Learn" section of each activity.

Most toys included in this book serve multiple purposes, and you can use them in many different ways. This book suggests a few ways, and you and the children will discover many more. Feel free to exchange or substitute activities among toys of

similar types. A few general suggestions may help you in maximizing some of the learning potential:

Understand that repetition is a necessary part of learning. Activities that may quickly bore adults often continue to interest children. Many of the toys and games may strike you as versions of “the same old thing.” To children, however, each one is a new experience—and it is the children’s enjoyment that is the most important consideration.

Vary the difficulty of matching games. Make discrimination tasks more complex or very simple to match the ability levels of the children involved in the activity.

Capitalize on the interests of the children. For example, a child who has no interest in matching games but who loves dinosaurs will often participate willingly if the matches are of different types of dinosaurs. A child’s attention span grows directly in relation to his or her interest in the activity.

Present one skill or task at a time. Many matching games in this book include multiple matching criteria. This makes the game more versatile in the long run, but initially it allows you to emphasize one criterion (for example, color). Generally, older children will show interest in the more complicated multiple-criteria tasks.

Recognize the literacy value of cue cards. These cards not only serve as clues while playing a game but also introduce the concept of symbols representing meaning, a prereading skill.

Realize that children’s learning about games with rules is a slowly evolving process. Young children frequently agree to rules but have no idea how to follow them and are not at all interested in the process. Avoid too many rules or “real games” that feature winners and losers.

Adapt the toys in this book by incorporating elements of various cultures. For example, you can include words from other languages in some of the board games and counting or matching activities.

This book was written to help people who care for children understand and enjoy the learning potential inherent in play. In addition, you may find this book useful for working with and including families in your curriculum, training new child care providers, training students or staff, and creating or augmenting your toy supply. Cherish the creativity and imaginative playfulness of childhood and appreciate its value for adults as well.

HOW TO USE THIS BOOK

The different toys and activities included in this book are grouped into six age-related sections that range from infants to schoolagers. Sections one through five follow an age-related continuum from infants through schoolagers and allow for considerable overlap. In general, the more versatile and flexible the item is, the broader its age-related appeal. Section four is the only section to target a single age group, preschoolers (children three through five years old). The activities in this section focus on specific cognitive skills that are developing during the preschool years. The last section includes items that can be used with all ages. The age-related suggestions for the activities need not be taken as absolutes. As you work with each child on a daily basis, you will best be able to ascertain each child’s developmental readiness, interests, and experiences, all of which will greatly influence how and when an activity will be useful for a particular child.

In addition to the “What They Learn” section, each toy includes these sections:

“About the Toy” describes the toy and ways children of different ages might use it. The suggested uses are just the beginning. Use your own creativity and encourage the children to use theirs to expand on the many possible uses of these items.

“Extending the Learning” describes ways to enhance the child’s learning through informal, observation-based methods and often includes participating with the children.

“What You Need” offers a list of the materials needed to create the toy.

“How to Make It” gives you step-by-step directions for making the toy. In some cases, alternative materials, variation games, or related activities are included.

“Green Idea” provides ideas to expand the activity and connect with taking care of our Earth.

HELPFUL HINTS FOR MAKING YOUR OWN TOYS

Once you have chosen a toy to make, carefully read through the “What You Need” and “How to Make It” sections. Note any safety considerations, particularly if infants or toddlers will be using the finished product (use safer substitute materials if you prefer). Generally, you’ll find that the suggested tools and materials are readily available. The following are suggestions for selecting and using materials for toy making.

All-purpose white glue is usually marked *nontoxic* and, if so, is good for toy making. Many other glues contain substances that could be harmful if swallowed or inhaled, so be sure to check labels. Choose a brand that is marked *nontoxic*. Glue sticks are generally nontoxic and are handy to use for many projects.

Felt-tip markers add color and are easy to use, but they do have limitations. Permanent markers are usually toxic and should be avoided. Water-based markers are usually safe, but toys made with them should be covered with clear contact paper to avoid bleeding should they become wet. When making infant or toddler toys, use contact paper cut into shapes instead of markers.

Contact paper is used in toy construction to allow for easy cleaning and may increase the life of the toy. Brightly colored contact paper also helps attract a child’s attention to the toy. Usually found in a variety of hardware or general retail stores, contact paper is a good investment for any serious toy

maker. Patterned contact papers can be used in the same way as wrapping paper (see below). If the object or toy is flat, lamination is an alternative way to protect and preserve it.

How to use contact paper:

1. Measure and cut the amount needed. Lay the piece flat on a table with the adhesive covering side up.
2. Twist the edges to loosen the covering.
3. Carefully peel away the covering and leave the contact paper on the table with the sticky side up.
4. Lay items to be covered facedown on the contact paper. If needed, place a second piece of contact paper on top of the game pieces, sticky side down.
5. Smooth by rubbing the items with your fingers, then cut out the pieces. For single-side coverage, fold the edges over the sides of the game piece or artwork.

Coding dots come in all sizes and colors and are generally available in office supply stores. They usually come in boxes of 1,000 dots per color, so find other people who would like to share materials. Some craft shops and teacher-supply stores have mixed colors of dots or labels, and some office supply stores sell individual sheets or smaller packages.

Wrapping paper is useful for making puzzles and many kinds of matching games. Use new or used wrapping paper and look for attractive papers with six to eight or more repeating picture items. Use paper with an overall scene (such as a playground or a forest) or papers designed with all different kinds of items (such as trucks, rocket ships, animals, or flowers) repeated many times.

Plastic containers and lids of all sizes and shapes can be used for making and storing games. Cover cut plastic edges with heavy tape to create a smooth, safe edge on the plastic.

Juice can lids work especially well in many toddler toys or matching games. Use only the smooth-edge lids that come from pull-tab containers (popular on frozen juice cans). Glue pictures to the lids or use them in play as anything from play money to pancakes. Let the children invent uses for them too.

Empty tape rolls can be used as wheels, in a ring-toss game, or in other imaginative ways.

Stickers and seals can be converted into matching or board games by using assorted stickers, such as ones with a holiday or animal theme. Look for at least six different versions of the same category (for example, six pumpkins or six butterflies). Look for books of stickers in teacher-supply stores, instrument and sheet music stores, party shops, and drugstores. (Stickers found in party shops or drugstores usually cost more, so make sure the packages contain more than one sheet of each sticker.)

Magnetic tape is helpful to use when making toys. One side of magnetic tape is adhesive, like regular tape, and the other side is magnetic. This tape is generally available in hobby shops, craft shops, and hardware stores. Remember that magnetic products can damage computers; therefore, magnets of any kind must be kept far away from them. When cutting magnetic tape, it is important that the pieces are large enough that they cannot be easily swallowed by children.

Velcro is a self-gripping material that is a marvelous addition to toy making. Small pieces of Velcro added to matching games allow the parts to be matched without slipping and sliding out of place. Children can then carry the completed game around to show an adult. They can remove the Velcroed game pieces when they stop working or no longer want to play. Just remember that the “smooth” or “loop” part must be on one side of the toy and the “teeth” or “hook” part must be on the other for the Velcro to work.

Tagboard can be found in many office-, art-, or teacher-supply stores. Recyclable alternatives that work equally well are used file folders, backs of tab-

lets or coloring books, shirt or stocking inserts, cereal boxes, or any other type of lightweight cardboard.

FINDING MATERIALS FOR TOY MAKING

Discount stores, craft stores, outlet shops, hardware stores, fabric stores, and home-decorating stores are all good sources for materials to use in toy making. Ask the managers of these stores to save surplus or unsalable items for you. Families and friends are other good sources for securing large amounts of common household items or recyclable materials. Surplus from friends, families, and stores is a good source for some items, but browsing and sorting through the supplies requires time and careful looking.

SAFETY CONSIDERATIONS IN MAKING AND USING TOYS

Always consider the safety needs of children when you make toys. Safe toys for children pass the following tests:

They are clean. Thoroughly wash and rinse all materials and containers before use.

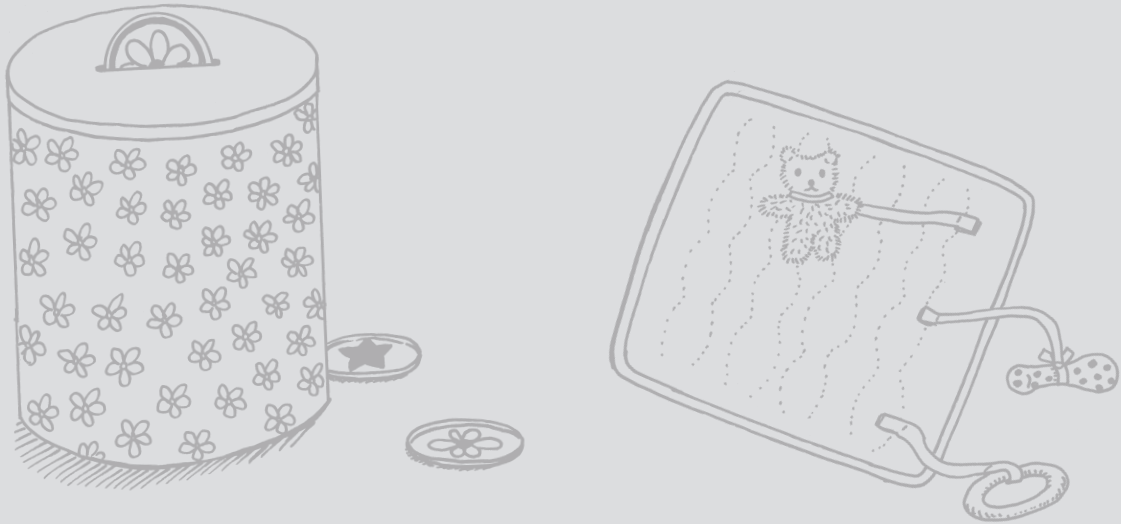
They have no sharp parts. Tape or round off corners. Take special care in removing lids from metal cans to be sure they are smooth along the rim. (You can often accomplish this by running the can opener around the can several times.) Sand and oil all material that might splinter.

They are too big to swallow. For infants, toddlers, or any children who put nonfood items in their mouths, the general rule is that an object be—at the very least—1 by 1½ inches in size. If you must use small objects, tie a few of them together to make them bigger. When using sponges or sponge-like materials in infant and toddler projects, cover the items with sheer panty hose to prevent children from biting off pieces and choking on them. Do not use staples in toys you are making for infants and toddlers. If toddlers will be handling the toys you create, sewing or taping is much safer.

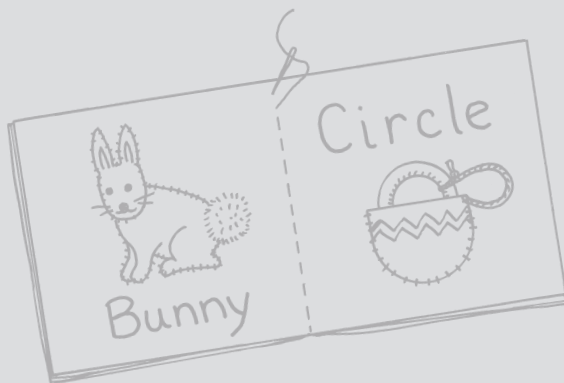
They are made of nontoxic materials. Do not use any material that could be harmful if touched, eaten, chewed, or smelled. Read the package instructions to make sure that markers, paints, and glue or other adhesives are nontoxic and safe for children (and adults) to use.

Note: Although the instructions for the toys in this book have been written with “kid-proofed” tests in mind, no one can guarantee the absolute safety of these toys or activities. Use care and common sense to make all toys as safe as possible. Most

of the toys described in this book are intended to be made by adults for children to use. Constructing the toys frequently requires the use of sharp tools, such as scissors and knives, which are not safe for children to use. If the children help you make the toys, be careful about possible hazards and supervise the children while they are handling the tools. Do not leave sharp tools lying around where children can get to them if you are called away during the construction process. Never leave any type of plastic bag or other flimsy kind of plastic within the reach of young children.



Infants, Toddlers, and Preschoolers

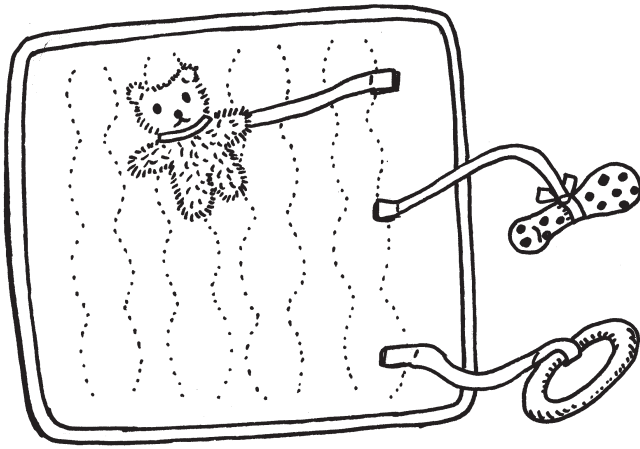


Sensory Floor Pad

Who

Nonmobile infants

About the Toy



The pad serves as a safe place for nonmobile infants by creating a clear boundary that older children can learn to recognize and respect. The pad encourages nonmobile infants to safely explore a variety of materials by touching, smelling, tasting, listening to, and looking at them. Be sure to customize the infant's learning experiences to meet his stage of sensory development. For example, if the infant appears to be exploring by putting everything in his mouth, make sure the items on the pad are large, safe, and clean. To help an infant concentrate on the items on the pad, place him away from other children's activities, facing the items you set on the pad.

What They Learn

Physical and motor development skills: At two months, most infants can raise their heads and

chins up from the floor, making the Sensory Floor Pad an ideal learning toy. Between three and six months, infants will begin batting at, reaching for, and grasping objects within their line of sight. You can encourage this development by saying to an infant, "Reach for the rattle," or "Come get the fuzzy ball."

Extending the Learning

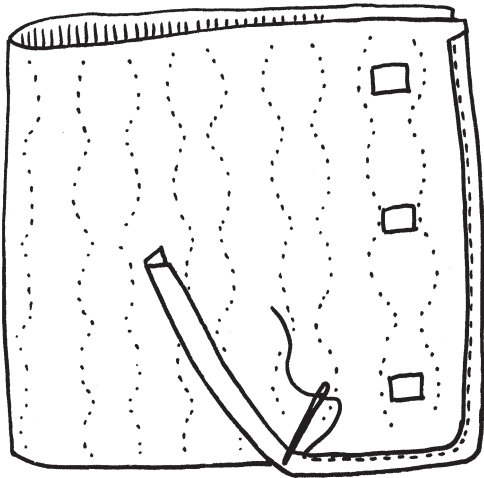
Infants' physical development progresses in a relatively predictable order. As you watch an infant's development over time, notice that he begins by swiping at objects on the pad and by about four months can grasp and squeeze the objects between his fingers and palm. When an infant appears to have lost interest in an object, add another that has different qualities. Pay attention to which types of items seem to excite the infant and which ones seem to calm him.

What You Need

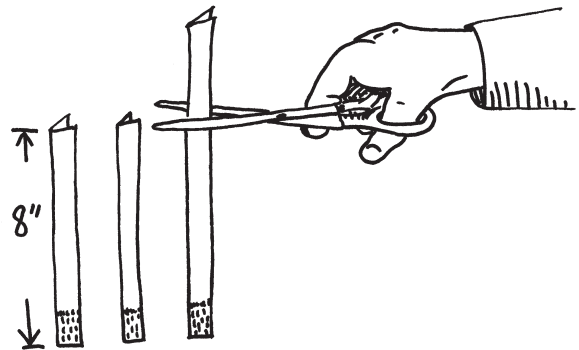
- nonallergenic, twin-size mattress pad
- scissors
- wide seam-binding tape or iron-on hemming tape
- needle and thread or iron
- ruler
- Velcro
- glue
- sensory objects with interesting surfaces and sounds (such as colorful plastic lids, rattles, plastic scouring pads, large pom-poms, furry material, sturdy play animals, or other toys)

How to Make It

1. Fold the mattress pad in half and cut it along the fold to create two sensory pads. You may want to leave the pad intact and use the folded section for extra padding.
2. Sew seam-binding tape all around (or use iron-on tape) to cover any raw edges.



3. Cut three or more 1-inch pieces of Velcro. Glue or sew the soft sides of the Velcro to the top of the mattress pad at strategic locations. For example, three in a row (about 6 to 8 inches apart) on one, two, three, or all four sides of the pad.
4. Cut three or more 8-inch pieces of seam-binding tape. Sew or glue the remaining rough-sided pieces of Velcro to one end of each length of seam-binding tape.



5. Tie or glue one sensory object to the other end of each length of seam-binding tape.

Take a toy inventory—throw away anything with chipped or flaking paint.

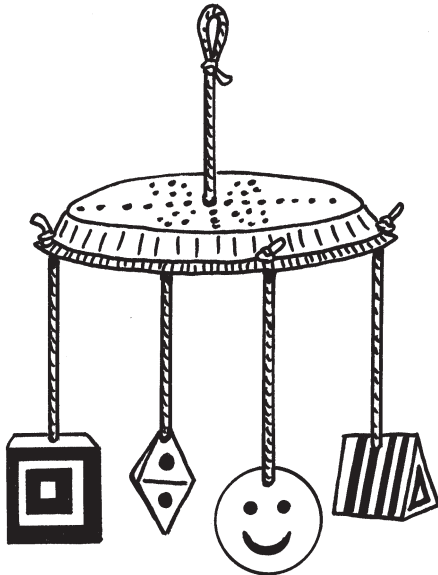


Hanging Mobiles

Who

Infants

About the Toy



The mobile's bright objects and points of light attract the infant's attention almost immediately. Be sure to create and hang the mobile with the infant's point of view in mind, making sure the broad surfaces of the hanging objects can be seen. Ensure that all hanging items are securely fastened by giving them a good shake or tug before introducing the mobile to an infant.

! **Caution:** If you have other children who may try to investigate the mobile, hang it away from objects the children can climb, such as tables, chairs, and windowsills.

What They Learn

Sensory perception development skills: Infants' perceptual abilities are much more advanced than once was assumed. The region of the brain that controls vision is very sensitive to stimulation and input from the environment. Since infants are most attracted to bold, bright colors and contrasting patterns, select objects for the mobile that include these attributes.

Extending the Learning

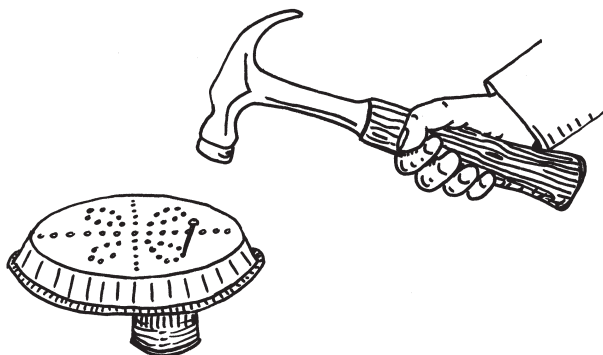
One way to nurture sensory development in infants is to provide multiple opportunities for early sensory stimulation. Overstimulation (too many sights and sounds), however, actually works against healthy brain development in infants. As you observe an infant watching a hanging mobile, be sure she appears calm, content, and focused on the toy. Any signs of agitation, such as turning her head away from the mobile frequently, may signal it's time to change her activity or environment.

What You Need

- aluminum pie tin
- juice can
- hammer and nail
- button
- yarn, string, fishing line, wire, cord, or shoelaces of various materials
- scissors
- colorful household objects (such as craft feathers, plastic or cloth fruit and vegetables, plastic

utensils, balls, pictures and designs from old greeting cards or magazines mounted on cardboard, empty spools, and small plastic bottles). Use only nontoxic objects and objects that are too large to choke on.

How to Make It



1. With a hammer and nail, punch four small holes along the rim of the pie tin (equal distance from one another) and one hole in the

middle. (Place the area to be punched over the open end of an empty juice can.)

2. Flatten any rough edges of the holes with the hammer. To hang the mobile, first thread yarn through the holes in the button and tie a knot in the end to keep the yarn from slipping through. Thread the yarn through the middle hole of the tin and make a loop at the other end.
3. Tie yarn to each of the four remaining holes in the tin. Hang objects from the yarn. Make sure the objects balance each other. You can hang any item by itself or in whatever balanced combination you feel will interest the infant.

Variation

A single aluminum pie tin with multiple holes punched on its surface makes a neat light reflector when hung vertically by a sunny window.

Create a list of items that can be saved from the recycling bin and ask families to bring in the items so they can be reused in new ways with the children.

