Infant and Toddler Spaces

Design for a Quality Classroom

A collaboration between WestEd’s Program for Infant/Toddler Care (PITC) and Community Playthings
I have always been regretting that I was not as wise as the day I was born.

- Henry David Thoreau
“Adults admire their environment; they can remember it and think about it—but a child absorbs it. The things he sees are not just remembered; they form part of his soul. He incarnates in himself all in the world about him that his eyes see and his ears hear.”

– Maria Montessori
Educator, physician, philosopher
Importance of the Environment

“Absorbing a host of impressions through his senses is almost the exclusive task of the infant… Often the whole life of a person is not sufficient to face the impressions absorbed in childhood, because his whole being, like a large eye, was open and wholly given to them. For this reason the care of an infant is so important.”

– Friedrich Froebel, Educator, founder of the Kindergarten

The first months and years of a child’s life are the most formative in development of mind, body, and spirit. Sleep, emotional and physical nourishment, and sensory stimulation are more important in infancy than at any other time. The most vital need for these youngest children is warm, nurturing care from the adults they depend on. We must also provide them with secure surroundings, and equipment and playthings that meet their needs and support their individual development.
The first three years of a child’s life are critical for brain development. After birth, brain cells establish trillions of connections. These connecting synapses form the brain’s “maps” that govern thought, feelings, and behavior. Brain cells analyze, coordinate, and transmit information. The brain learns and remembers throughout life by constantly changing these networks as it receives input from its environment.

Although parents pass on a variety of characteristics to their children through their genes, the environment plays a major role in developing a child’s personality by shaping the expression of those genes. External influences, from conception onward, offer the brain intellectual, emotional, social, and physical experiences for the trillions of connections between brain cells that make learning and memory possible.

“Babies are busy ‘wiring’ their brains. They are born with all the brain cells (neurons) they need, but they are not ‘intelligent’ as we understand that term…. they perceive but don’t think the way we do because they can’t retain images or symbols in their minds. Babies construct intelligence through experience, welding sparsely connected neurons into densely interconnected pathways.”

– Jim Greenman, Educator, Sr. Vice President of Program Development, Bright Horizons Family Solutions
Eight Considerations for Quality Infant and Toddler Environments

- adapted from PITC’s Infant/Toddler Caregiving: A Guide to Setting Up Environments

Since surroundings have such a powerful influence on infants and toddlers, there are eight qualities to consider when setting up group care environments. These qualities can be divided into two groups. Four relate to the needs of infants and their caregivers: Safety, Health, Comfort, and Convenience. The second four support infant development: Child-Size Space, Flexibility, Movement, and Choice.

1. Safety

Safety is one of the most important concerns in a group-care setting. In a safe environment, children move about freely and explore without the caregiver worrying about children getting hurt. She can spend her time in positive interaction with the children, rather than patrolling a “no” environment.

Safe environments have:

- developmentally appropriate equipment made of non-toxic materials such as wood.
- non-slip floors.
- stable shelves, objects and fixtures with rounded corners.
- steps toddlers can use to reach the changing table so that caregivers will not have to lift them.

“As soon as a baby starts crawling, you can count on the fact that he will discover every hidden danger in the environment. That means his caregivers need to discover those hidden dangers first and eliminate them.”

- Dr. Thelma Harms, Director of Curriculum Development, Research Professor, UNC-CH School of Education

2. Health

Health is a fundamental issue when caring for infants and toddlers. Both children and adults must be protected from infection and illness, above all by a well-kept environment.

- Separate the diapering and toileting areas from food preparation and feeding areas.
- Keep these and all areas clean at all times.
- Have sufficient plumbing to allow children and caregivers to wash hands regularly.
- Make sure surfaces are easy to clean and suitable for the activities in the area—walls, floors, furniture, and toys.

Heat, light, ventilation and acoustics all have an impact on the development of children’s health. Since smell is one of the most important indicators of a healthy environment, clean floors and furnishings are of utmost importance. A child care center needs an efficient air exchange system, as well as screened, openable windows, if at all possible.
3. Comfort
A comfortable environment creates a calming atmosphere and allows both infants and caregivers to function without stress, which is injurious to brain development. Reducing clutter, giving attention to attractive display, and introducing nature in the room are some ways to bring about a harmonious and relaxing mood.
• Try soft and natural colors on walls and furnishings.
• Use natural light, lamps, and full-spectrum lights rather than fluorescent lights.
• Each room needs a steady flow of fresh air.
• Acoustical tiles and rugs with pads help to absorb noise.
• Soft cushions, pillows and back supports for adults sitting on the floor help make the environment comfortable.

4. Convenience
A convenient environment is one in which both the infants and adults can easily see, find, and access materials. Make sure the arrangement of equipment is clear and visible to all who use the space. Materials should be grouped together logically. Since infants and toddlers cannot read labels, they take cues from the way each area is organized, as well as its mood, to stimulate their interaction with the environment.

Feeding, Washing, and Toileting Areas
Feeding and toileting areas must be clean, bright and convenient. That means the environment must be easy to clean and easy to work in. The equipment should be scaled so that picking up, bending over, and reaching are kept to a minimum.

Storage and Shelves
Storage is the caregiver’s strong silent partner in a smoothly run childcare program. Adequate storage and proper placement of storage builds ease and efficiency into your environment.

Entrance and Parent Communication Area
Entering and leaving the childcare setting are important activities. A well-defined entrance gives children a clear sense of space, predictability and security. Both children and parents can experience separation anxiety, so an attractive and cheerful entrance can dispel their fears, inviting them to enter a special place designed just for them. When parents feel welcome in the classroom, they’ll have more confidence to visit, communicate, and make the transition that works for them.
Infants experience Three Stages of Development:

Regardless of age, infants are searching for a sense of security, are drawn to exploration of their surroundings, and are carving out their own special identity. The caregiver-help that children require changes as they progress through the stages of infancy. It is important that the surrounding environment supports both the growing infants and the teachers who care for them.

- Young or Immobile Infants (0-8 months) thrive on the warmth and caring from a close relationship with caregivers. This security prompts young infants to explore and begin to shape their identity.
- Mobile Infants (6-18 months) are more focused on exploration. Curious, the mobile infant learns to propel herself to explore the environment when she feels secure.
- Toddlers (16-36 months) are establishing their identity. Who am I, and who is in charge? Although a toddler is asserting his own control and independence, he still needs a strong sense of security in order to explore the world with more purpose.

5. Child-Size Space

When an environment is designed to fit infants and toddlers, they can reach what they want, climb up what (to them) are challenging distances, and explore what interests them. Caregivers spend less time lifting children, putting them in chairs, getting toys for them, and picking up things they drop.

Child-size space also takes into account the role of the caregiver. Intentional and responsive interaction with each child will encourage them to new levels of play. Since the quality of your interactions has a direct bearing on children’s confidence and ability to learn, swings and walkers are not recommended. They inhibit the infant’s natural need to move and explore, and prevent adults from interacting in the ways that benefit children most. If the space is child-scale and designed for exploration, and if caregivers are interactive, "babysitter equipment" will not be needed.

“Research shows that the more child-scaled the environmental space, the higher the quality and complexity of children’s play will be, and the longer they will be preoccupied in the play. In other words, a child-scaled environment increases children’s interest and concentration, and it delays boredom. In a large space, children are encouraged through reading the environment to move about from one thing to another, whereas in small contained areas, they are more focused.”

— Randy White, CEO, White Hutchinson Leisure & Learning Group, Inc. Designing facilities for children’s development, learning and play
6. Flexibility

To create a flexible room:
- Use equipment that is easy to move—lightweight and mobile.
- Use adjustable equipment that will keep up with growing children.
- Store a variety of toys, materials, and equipment in a convenient place.
- Combine some activity areas to maximize the use of your space: for example, the messy activities can take place in the mealtime area.

An Open Center

No matter what type of setting you have, plan to keep part of it open. Placing all the large equipment around the edge of the room allows you to keep the center open and to alter it as needed. An open center lets the children see what activities are available throughout the room. The children can also see the caregiver across the room, and the caregiver can see and respond to any child who needs attention. An open center creates maximum flexibility and lets children navigate easily between areas and explore their independence.

Working with Limited Space

When a small area must meet the varied needs of infants and toddlers, you have the challenge of limited space. Strategies for designing a limited space include:
- A changeable environment.
- Lightweight, easy-to-move boundaries.
- Multi-use, multi-purpose equipment.
- Optimal storage and creative use of space.

Tables that serve two or three purposes, such as feeding, art play, and messy activities, are examples of multi-purpose equipment.

On a Child's Level

It's such a big world. Your classroom may be the one place where a child can reach, sit, play and work without constantly asking an adult for access.

To create a child-size environment, use:
- tables and chairs that are small and low.
- 24" shelves so children can see and reach toys.
- mirrors and pictures at child-height.
- easels at infants’ eye level, 10"-14" off the ground for toddlers.
- steps 4"-5" high.
- some adult-size furniture, so caregivers can rock and cuddle children in comfort.

Activity Areas

Think of activity areas as separate places, like little islands. Then work to make them feel separate. You can do that by making sure each activity area has these three qualities:
1. A separate physical location.
2. Boundaries that separate it from other areas.
3. A mood, feeling or personality.

Each part of the environment has an impact on the children and adults who use the space, so consider the kind of effect you would like each area to have, and how it reflects your program’s goals.
“Toddlers will move whether moving is safe or not. They constantly try out new movement skills and explore their independence. A well-designed environment encourages safe exploration but gives toddlers the feeling of risk, of expanding their limits.”


7. Movement

Infants and toddlers need an environment that encourages movement. The first three years are what Piaget calls the sensorimotor period, where infants and toddlers learn through sensory exploration. They develop physical and cognitive skills, and learn about people and objects by becoming fully involved with their surroundings.

Encourage infants and toddlers to move freely and explore with: open pathways for crawling; low steps to climb; surfaces with a variety of textures, tunnels, slides, mattresses, rocking boats, play pits, balance beams, hammocks, risers, lofts and easy access to outdoors.

Multiple Levels

Set up your environment so that crawlers and walkers can both see and get to many levels. Use slopes, stairs, or small ladders. Create a shallow play-pit. Different levels provide variety, diverse viewpoints and numerous chances for movement. By creating various levels, you also expand the space. For example, you can place a big chair or playhouse on the floor level, then use a loft over the same floor space for a climbing apparatus with a platform to play on.

Researchers have found that fixed equipment such as climbers and slides, rather than toys and planned activities, stimulate cooperative peer play.
The regulations for group size and caregiver-to-child ratios vary from state to state. Be sure to check your state's requirements.

The Program for Infant/Toddler Care recommended Group Sizes for Same-Age Groups are:

<table>
<thead>
<tr>
<th>Age</th>
<th>Ratio</th>
<th>Total Size</th>
<th>Minimum # Square Feet Per Group*</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–8 months</td>
<td>1:3</td>
<td>6</td>
<td>350</td>
</tr>
<tr>
<td>6–18 months</td>
<td>1:3</td>
<td>9</td>
<td>500</td>
</tr>
<tr>
<td>16-36 months</td>
<td>1:4</td>
<td>12</td>
<td>600</td>
</tr>
</tbody>
</table>

*The space guidelines represent minimum standards of adequate square footage per group; the amounts shown do not include space for entrance areas, hallways, diapering, or napping areas.

**Of the four infants assigned to a caregiver, only two should be under twenty-four months of age.

The Program for Infant/Toddler Care recommended Group Size for Mixed-Age Groups are:

<table>
<thead>
<tr>
<th>Age</th>
<th>Ratio</th>
<th>Total Size</th>
<th>Minimum # Square Feet Per Group*</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–36 months</td>
<td>1:4</td>
<td>8</td>
<td>600</td>
</tr>
</tbody>
</table>

*The space guidelines represent minimum standards of adequate square footage per group; the amounts shown do not include space for entrance areas, hallways, diapering, or napping areas.

8. Choice

**Babies and toddlers** usually play most happily with a few toys that are changed frequently. When a toy that has been put away for a short time reappears, it again captures the child’s attention because it seems new and exciting.”

– Dr. Thelma Harms, Director of Curriculum Development, Research Professor, UNC-CH School of Education

Know your group size/ratios

An environment that allows infants and toddlers to make choices supports their development because it is predictable and provides children opportunities to discover what they find interesting or challenging. Set up different areas of the room with a variety of activities, textures, and equipment. There should be spaces for large group activities as well as small, private spaces, active and quiet play areas and room for messy activities. Your space can support your program, providing stimulation and a balance between challenge and comfort, so children can “push their limits” and expand them.

Caregivers need to be able to observe and respond to cues in the children’s behavior in order to arrange and rearrange the environment.

**Rest and Sleeping Areas**

Infants and toddlers in child care should be able to rest or sleep when they are tired. An infant who wakes up often during the night may need more sleep the following day. A toddler just getting over the flu may need two naps instead of the usual one. The environment should have places where children can relax and a place where they can take a nap with their own bedding whenever they are sleepy.

For more information, visit: www.pitc.org
Search for: Recommendations for Group Size
1. Involve teachers, parents and children in the design process, and allow enough time for the design process.

2. Licensing standards do not always support the developmental needs of children. For instance, while 35 square feet per child may be your state’s minimum space requirement, it is not enough for children’s optimal use of indoor environments. Quality programs make decisions based on what nurtures the child and his development.

3. Long-term flexibility is of utmost importance. For this reason mobile storage is preferable to built-in storage.

4. Follow the children’s ADA standards rather than using the adult ADA standards in children’s areas.

5. Doors: keep to a minimum, as they take space and generate traffic.

6. Windows: Natural light is excellent, and children love to look out; but too much glass creates a harsh environment, takes valuable space, and can make the environment feel exposed.

7. Floor surfaces: consider material, color, ease of cleaning, sound absorption, and visual effect.

Play is an expression of our creativity, and creativity is at the very root of our ability to learn, to cope, and to become whatever we may be.

— Fred Rogers of Mister Rogers’ Neighborhood
As seen on PBS, www.fci.org and www.pbs.org/rogers
1. Make a Room Plan:
- Draw the room (to scale) on graph paper.
- Add: windows, doors, sinks, floor surfacing.

2. Mark in the flow paths:
- Draw the most direct routes between the entry and all other doors, water sources and storage closets.

3. Circle the Protected Corners:
- Reserve prime space for quiet or traffic-free activities.
- Protected corners should be as distant as possible from doors and flow-paths.

4. Divide into Wet & Dry Regions.
- **Wet Region:** Identify using the "3F" rule: flow, flooring and fixed plumbing.
- **Dry Region:** Should contain at least one protected corner, and can be carpeted.

5. Divide into Zones:
- **In Wet Region:** Entry Zone, Messy Zone
- **In Dry Region:** Active Zone (should include a protected corner), Quiet Zone (must include a protected corner).

6. Plan Activity Areas in the appropriate zone.

Here are some suggestions:

<table>
<thead>
<tr>
<th>Entry</th>
<th>Messy</th>
<th>Active</th>
<th>Quiet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children’s Storage</td>
<td>Feeding</td>
<td>Gross Motor:</td>
<td>Nap Area</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ramp, shallow steps, foam</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>shapes, balls, mirrors,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>tunnel, pull-to-stand bars</td>
<td></td>
</tr>
<tr>
<td>Staff Storage</td>
<td>Diapering</td>
<td>Water Play (older infants)</td>
<td>Cozy space:</td>
</tr>
<tr>
<td>Parent Sign-In &amp; Communication</td>
<td></td>
<td></td>
<td>for quiet play (separate from</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Nap Area)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>soft toys, cozy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>surfaces, infant/caregiver</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“cuddle corners”</td>
</tr>
<tr>
<td>Transition space (adult</td>
<td>Finger-Painting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;farewell chair&quot; or Glider</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7. Create a space for each area:
- This space includes storage for items used in that area.
  The layout should communicate activities and boundaries.
1. Make a Room Plan:
- Draw the room (to scale) on graph paper.
- Add: windows, doors, sinks, floor surfacing.

2. Mark in the flow paths:
- Draw the most direct routes between the entry and all other doors, water sources and storage closets.

3. Circle the Protected Corners:
- Reserve prime space for quiet or traffic-free activities.
- Protected corners should be as distant as possible from doors and flow-paths.

4. Divide into Wet & Dry Regions.
- **Wet Region:** Identify using the “3F” rule: flow, flooring and fixed plumbing.
- **Dry Region:** Should contain at least one protected corner, and can be carpeted.

5. Divide into Zones:
- **In Wet Region:** Entry Zone, Messy Zone
- **In Dry Region:** Active Zone, Quiet Zone (use protected corners).

6. Plan Activity Areas in the appropriate zone.

Here are some suggestions:

<table>
<thead>
<tr>
<th>Entry</th>
<th>Messy</th>
<th>Active</th>
<th>Quiet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children’s Storage</td>
<td>Feeding</td>
<td>Gross Motor:</td>
<td>Cozy Corner: books, Glider</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ramp, slide, shallow steps, foam shapes, balls, mirrors, tunnel, pull-to-stand bars, push-wagons, rocking toys, riding toys</td>
<td>for caregivers, cushions and low soft seating, furry friends</td>
</tr>
<tr>
<td>Staff Storage</td>
<td>Diapering/</td>
<td>Dramatic Play:</td>
<td>Manipulatives: toys &amp; games,</td>
</tr>
<tr>
<td>Parent Sign-In &amp; Communication</td>
<td>Toileting</td>
<td>simple costumes, housekeeping furniture</td>
<td>small wooden blocks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Music &amp; Movement:</td>
<td>open space, simple rhythm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>instruments, CD player</td>
</tr>
<tr>
<td>Transition space – (adult “farewell chair” or Glider)</td>
<td>Art: floor easels or tables</td>
<td>Nap Space: usually cots or mats are placed around the room</td>
<td></td>
</tr>
</tbody>
</table>
7. Create a space for each area:

- This space includes storage for items used in that area.
  The layout should communicate activities and boundaries.
Bibliography

Cryer, Debby & Harms, Thelma & Riley, Cathy. All About the ITERS-R. Kaplan PACT House Publishing 2004


Koralek, Derr G. & Dombro, Amy Laura & Dodge, Diane Trister. Caring for Infants & Toddlers, Teaching Strategies, Inc. 2005


Mangione, Peter L. & Lally, J. Ronald & Signer, Sheila. The Ages of Infancy: Caring for Young, Mobile and Older Infants, California Department of Education 1990

Mangione, Peter L. & Lally, J. Ronald & Signer, Sheila. Meeting the Intimacy Needs of Infants and Toddlers in Groups, Far West Laboratory 1992


We thank WestEd’s Program for Infant/Toddler Care (PITC) for their research contribution.

They have developed the most widely used training system for infant and toddler caregivers in the United States, and their team is at the forefront of national efforts to improve infant/toddler care. We depended on the PITC staff for much of the information in this booklet, and much more is available on their website: www.pitc.org.

We thank the children and staff of the Children’s Learning Center in Kingston NY, especially Michele Conklin, for their time, patience and charm as the cameras flashed. The children were great models because they simply showed up and played!

We thank these quality early childhood vendors for some of the props in our photo images:

- Folkmanis Puppets  www.Folkmanis.com quality hand puppets
Prime Times
Achieve quality care and education in your infant or toddler program with this practical guide—a sourcebook for establishing, organizing, and maintaining a quality program. This edition includes topics such as developmental issues; infants and toddlers with special needs; staffing and staff training; creating learning and nurturing environments; establishing routines; discipline; health, nutrition, and safety policies; curriculum; partnering with parents; assessment; and program evaluation.

By: Jim Greenman, Anne Stonehouse, Gigi Schweikert.

Caring for Infants & Toddlers in Groups
Caring for Infants and Toddlers in Groups is designed to help caregivers, program directors, coordinators, administrators, trainers, licensers, families, and leaders in the field of early care and education recognize the special knowledge and skills needed to offer a nurturing group care environment to very young children.

By: J. Ronald Lally, Abbey Griffin, Emily Fenichel, Marilyn Segal, Eleanor Szanton, Bernice Weissbourd.

Community Playthings catalog
Community Playthings makes solid maple furniture and toys designed for childcare settings. We create environments that welcome children into a space of beauty, simplicity, and stability, where they can explore, discover and learn through play.

For a free catalog, call 800-777-4244, or visit www.CommunityPlaythings.com

Spaces
Room Layout for Early Childhood Education
The companion volume to the booklet you’re reading, Spaces is the room design handbook for 3 to 5-year-old environments. This 16-page booklet walks you through 6 easy steps to create a quality classroom. Available free from Community Playthings:

call 800-777-4244, or visit www.CommunityPlaythings.com

Collage,
our quarterly e-mail newsletter, provides valuable articles on timely subjects for busy early childhood educators. Each issue includes 3 hand-picked articles on a single topic such as:

- Block Play
- Celebrating Culture in the Classroom
- Infant/Toddler Care

Collage can be a valuable staff development tool for your program. We include the theory behind each topic, practical applications and lots of links to resources you won’t want to miss. Best of all, it’s free.


Working on a Start-up or Renovation?
Give us a call about our free room planning service. Our planners can work with you to design developmentally appropriate classrooms that match your curriculum.

For other free resources: 1-800-777-4244 www.CommunityPlaythings.com
We thank the children and staff of the Children's Learning Center, (Kingston NY) for sharing their photogenic talent and beautiful center in the pages of this booklet.

“Community Playthings has brought to life the eight major concepts PITC recommends be considered when planning environments for children under three. They suggest thoughtful designs that meet the young child's need for intimate care, foster relationships with adults and other children, and support development.”

– J. Ronald Lally, Ed.D.
Co-director, Program for Infant Toddler Care, WestEd