



Early

# Learning & Education PROGRAMS

## Learning Environments for Infants

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What happens when you hold a new toy out to an infant? Chances are the infant will gaze studiously at the object for a moment, then reach for it, grasp it, wave it around in the air, stick it in their mouth, look at it again, bang it on the floor a few times, and then start the process all over again. Why do infants do that? Because that is how they learn.

Infants are sensorimotor learners. According to child development theorist Jean Piaget, sensorimotor learning is the first stage of cognitive development and occurs from birth to approximately two years of age. During the sensorimotor stage of development, what infants know, or learn, about the world is limited to their sensory perceptions and motor activities.



Create an environment that is cheerful, comfortable, and challenging. An interesting environment will trigger an infant's natural curiosity to explore. Place pictures of the infants and their families on walls or furniture where they can be easily seen so that infants feel a connection between your program and their home. Infants also like to look at themselves, so place shatterproof mirrors low on walls, or use safety mirror toys to support the infant's exploration of self.

Use natural light or lamps with soft light that give a home-like feel to the room and include different textures. If you have hard floors, add soft carpets, tumble mats, and pillows. Use folded tumble mats, or

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### BEAUTIFUL WORDS

Children learn that words have a variety of purposes. They learn that in English they read from left to right and top to bottom, and that writing involves parts like a letter, word, or sentence. One way to help children develop these skills is to provide them with a variety of written materials to explore.

Place books near relevant materials. For example, you might put books about rocks in the science area, songbooks in the music area, or a picture dictionary in the writing center. In this way, children can explore the book's purpose as well as the text itself.





## All About Math

Children need opportunities to inquire, explore, estimate, and problem-solve throughout the day. These experiences build their knowledge of mathematics and foster their natural curiosity for learning. As you review the following math concepts children learn and develop over time, consider how you select materials and create an environment that invites children to explore math in a variety of situations.

- **Number Sense:** Number sense refers to a child's ability to identify numbers and numerals, count, understand quantities and number relationships or operations (if amounts are equal, one container holds more, or simple addition and subtraction). For example, use mealtimes to count, add, or subtract apple slices.
- **Algebra and Functions:** This refers to a child's ability to classify and identify or create patterns. Classification is understanding that things can be sorted by characteristics like height, weight, color, and other similarities or differences. Patterning skills involves being able to identify a pattern (two red beads, one blue, two red, and one blue) and create their own patterns. Offer children blocks, beads, art materials, and other objects they can use to make patterns.
- **Measurement:** Measurement refers to comparing and ordering objects. For example, knowing which is the largest or longest, and being able to place objects in order from

smallest to largest, or largest to smallest. Children can use measuring tape, string, blocks, scales, or cups to practice measuring items and estimating size.

- **Geometry:** This includes identifying and manipulating shapes, and understanding the positions of objects in space (this refers to them understanding positional words and phrases like up or down, inside or outside, and behind or in front). Children can practice these skills with puzzles and art.
- **Mathematical Reasoning:** When children engage in mathematical reasoning, they are actually using one or more of the above standards to solve a problem. It refers to a child's ability to use logical steps and try different solutions when solving daily problems.

Source: *California Preschool Learning Foundations, Volume 1* by the California Department of Education (Sacramento, 2008).



# Let's Get Moving!

Children often spend a lot of time sitting down. Whether it is in front of a television, computer, or with handheld devices, the end result is the same. Children need to learn how to create a balance between active play and passive activities. Active play releases pent-up energy from stress, and it also supports healthy physical development.

Engage infants in physical play by placing them on their tummy with a toy just out of reach. Encourage them to roll and stretch toward the toy by moving it around. Another way to get infants moving is to lay them on their back, place your hands under their calves, gently draw their legs upward, carefully help them bend their knees, and move them in a slow-cycling motion. Invite toddlers to dance to music, move through an easy obstacle course of pillows and tunnels, ride push bikes, dig in the sand, throw balls, run outside, and go for walks.

Make sure that preschoolers play outside every day. If you notice their play seems to be getting aggressive, invite them to play a game like freeze tag, soccer, or Duck-Duck-Goose. When you see they are more focused, they can return to free play. You can also plan structured outdoor activities that get them moving, such as obstacle courses, parachute play, dancing to music with scarves, bike races, hula hoop contests, and water play.

School-age children need time outside, too. They can play hopscotch, jump rope, soccer, basketball, croquet, freeze tag, or dance to music. Studies have shown that children who engage in physical activity outside require less re-direction inside. That means a more peaceful and healthier environment for everyone. So, get up, get out, and get moving!



## Learning Environments for Infants

a mattress, and large pillows to create a low climbing structure for mobile infants. Moving their bodies up and over obstacles gives them a problem to solve. In outdoor areas, invite infants to crawl on grass, move up and down steps, and provide toddlers with push-pull toys so they can try maneuvering over different surfaces.

Use a small plastic wading pool to create a cozy space. Line it with a soft blanket and pillows. Encourage pretend play by adding soft dolls, stuffed animals, and puppets. As children demonstrate an interest in pretend play, add other small props such as plastic food, phones, and dishes. Cozy spaces are also wonderful book areas for toddlers. Choose board books with large uncomplicated pictures to help infants develop an interest in literacy.

Select toys and learning materials that support cognitive development. For example, shape sorting boxes, hollow blocks, and stacking rings help infants practice understanding spatial relationships, sizes, patterns, and volume. Using simple musical instruments or action toys with buttons, levers, slides, and latches can give children a chance to explore the concept of cause and effect. Personal care routines such as eating, dressing, sleeping, changing diapers, and washing hands create routines or patterns and are key to building relationships. These experiences prepare them for achieving math milestones during their preschool years.

Whether you are setting up your environment, planning curriculum, or simply relaxing with an infant in your arms, be intentional. Ask yourself, "How will this support an infant's learning?" Observe infants and toddlers closely and maintain good communication with parents in order to understand what each child's needs and interests are. Be intentional in your teaching, and the children will be curious about learning.

Source: *California Infant-Toddler Learning and Development Foundations* by the California Department of Education (Sacramento, 2009).

## MATH TALK



While children play, adults can observe and join in when appropriate to introduce math vocabulary. For example, if a group of children is in the block area building a structure, the adult could say, "I see you are using the rectangle blocks as a foundation, and the square blocks as walls." Block play is a wonderful way to introduce math vocabulary about shapes, colors, and patterns.

Blocks can be used to illustrate complex math terms. If a child is building roads, you can point out which roads are parallel or perpendicular to each other. Think about the materials children can classify or use to make patterns. How could you use those experiences to support children's development? What questions could you ask? Write down some general questions and make them into a wall poster that you can refer to throughout the day.

Source: *California Preschool Curriculum Framework, Volume 1* by the California Department of Education (Sacramento, 2010).

## Exploring Science

Invite children to help prepare and explore the following activities to encourage nature and science exploration.

### Ocean Bottle

- Plastic bottles for each child
- Water
- Oil (baby or vegetable)
- Blue food coloring
- Strong tape
- Glue



Fill each plastic bottle half full with water. Add and mix food coloring until the desired color is reached. Fill the rest of the bottle up to the top with oil so there are no air bubbles. Secure the lid by placing glue inside the cap before twisting it on and wrapping it with strong tape. Move the bottle from side to side to simulate ocean waves.

### Sensory Bags

- Gallon-size sealable freezer bags for each child
- Cornstarch
- Water
- Oil
- Food coloring (various colors)
- Strong tape

Combine equal parts of cornstarch and water, adding extra cornstarch if needed. Then, add a few drops of food coloring to each bag. Gently mix. Add 1/2 cup of oil to the bag. Seal the bag tightly with strong tape. Lay the bag flat on the table and gently press on it with a finger. Watch the colors mix and separate. Shake the bag gently in front of you and watch what happens.

Source: Information adapted from <https://inspirationlaboratories.com/color-mixing-oobleck-sensory-bag> in December 2023.

# Springtime Fun!

Invite children to express themselves creatively through art projects, singing, dancing, and acting out stories.

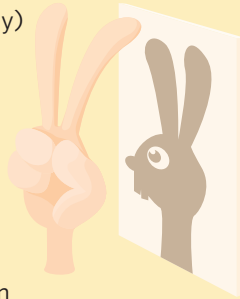
**Activity:** Here Is A Bunny (Fingerplay)

**Age group:** Infants

**What you need:**

No materials needed.

**What you do:** Chant this fingerplay with one or more children. Remember to be animated and encourage children to participate as much as they can. *Here is a bunny with ears so funny* (slightly bend two fingers over your thumb of your right hand), *and here is a hole in the ground* (make a hole with the fingers of your left hand). *When a noise they hear, they prick up their ears* (flick your bunny fingers up straight), *and hop into their hole so round* (hop the “bunny” into his “hole”).



**What they learn:** Infants practice tracking movement with their eyes, learn new vocabulary, practice moving their hands and arms, and interact with their caregiver.

**Source:** Fingerplay adapted from: *The Complete Book of Rhymes, Songs, Poems, Fingerplays, and Chants* by Jackie Sillberg and Pam Schiller (Gryphon House, 2002).

**Activity:** A Caterpillar Crawled (Fingerplay)

**Age group:** Toddlers

**What you need:**

No materials needed.

**What you do:** Tell the following caterpillar story and invite children to join in with the movements. Once they are familiar with the story, they can join in with saying the words. *A caterpillar crawled* (crawl fingers up one arm), *to the top of the tree. “I think I’ll take a nap,” says he* (place one hand over the opposite fist). *So, under a leaf he began to creep to spin his cocoon and fall asleep. All winter long he slept in his bed, until spring came along one day and said, “Wake up, wake up, little sleepyhead* (shake fist with other hand) *Wake up it’s time to get out of bed.” So, he opened his eyes that sunny day* (spread fingers, hook thumbs



together). *Look! He’s a butterfly, flying away* (flap hands as if they were wings flying away).

**What they learn:** Children practice language and motor skills. Extend the fingerplay by inviting children to create props or puppets they can use to act it out.

**Source:** Fingerplay adapted from: *The Complete Book of Rhymes, Songs, Poems, Fingerplays, and Chants* by Jackie Sillberg and Pam Schiller (Gryphon House, 2002).

**Activity:** Upcycled Art

**Age group:** Preschool

**What you need:** A camera, empty cardboard boxes of all sizes, empty plastic containers, plastic lids from dried-out markers, buttons, glue, heavy-duty tape, sequins, foam pieces, pipe cleaners, yarn, paint, markers, scraps of material, and any other collage materials you want to use. If possible, check out the book *Not a Box* by Antoinette Portis from your local public library.



**What you do:** This project can take place over several days, so set it up in an area that’s out of the way where their ongoing work is safe. Read the book *Not a Box* and talk about what a box can become. Invite children to select a box and create whatever they can imagine with the materials provided. They can work alone or in groups. Encourage them to spend several days working on their projects. Take pictures of the projects during their construction phase, and again when they are complete. Create a book with pictures of the projects and ask children to talk about what they are and how they made them. Write down the children’s thoughts and place your classroom “Not a Box” book in the reading area.

**What they learn:** They practice critical thinking, self-expression, language, literacy, and motor skills. Children also develop creativity and resourcefulness.



# Springtime Fun!

**Activity:** A Play of Our Own

**Age group:** School Age

**What you need:** Paper, pencils, collage materials, craft sticks, glue, puppets, music, flat bedsheets, tarps, or tablecloths, and any other prop materials.

**What you do:** Invite school aged children to write a play (story), prepare props, and perform it for you and the other children. For puppet shows, a flat bedsheet, tarp, or tablecloth can be taped across the edge of a table to hide the puppeteers. They may even want to invite their families to watch. They can create tickets that they hand out for their live performance.

**What they learn:** They practice using language and props to create stories, work cooperatively with others, investigate different social roles, and gain confidence from performing in front of others.



## ABOUT CHS

For over 130 years, Children's Home Society of California (CHS) has adapted to the changing needs of children and families. Since 1891, CHS has worked diligently to protect our community's children and strengthen their families through diverse programs and services.

At CHS, we view a child not in isolation, but in the context of each family's health, stability, and resources. We believe that families are fundamentally strong and resilient. The mission of CHS is to reach out to children and families at risk with a range of services to ensure every child the opportunity to develop within a safe, healthy, and secure environment.

Therefore, CHS provides a variety of services to children and families in California and nationwide, working to improve their quality of life by offering vital information, education and resource services, and child care assistance.

CHS also serves as an expert resource for child care providers, other social service agencies, and government agencies at the local, state, and national level. To learn more about CHS and resources available to you, please visit our website at [www.chs-ca.org](http://www.chs-ca.org).

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