



Learning to Grow

MAKING A DIFFERENCE TOGETHER

Active Play for Learning

"Ready, set, go!" This common phrase at the start of children's movement games could be the battle cry for learning. As stated in G. Connell and C. McCarthy's book, *A Moving Child is a Learning Child: How the Body Teaches the Brain to Think*, every move a young child makes, whether intentional or accidental, develops physical capabilities while building sensory perceptions and critical pathways in the brain for thinking and learning.

During active play and movement, young children use:

- ♥ familiar senses of sight, hearing, and touch
- ♥ important internal sense of balance and movement, known as the **vestibular system**.

The vestibular system coordinates with other senses, especially vision, to help us maintain our balance whether we're still or moving.

During the early years, movement experiences support a child's developing vestibular system. The brain's priority is movement which eventually becomes "automated" (such as being able to walk and talk). Young children are learning to control large and small muscle movements. Their need to move, wiggle and touch serves to wake up their brain to stay alert, listen and learn. Therefore, it is normal for young children to have difficulty maintaining a still position, such as sitting with legs crossed and hands on your lap, as this is one of the most advanced demonstration of a mature vestibular system.

Being able to sit still, pay attention and listen are often described as important school readiness skills. The vestibular system is foundational to all of



these. This newsletter will discuss ways to support children's vestibular system development at each age level — infants, toddlers and preschoolers, and present active play movement ideas for each age group.

This newsletter includes:

- ♥ **Age-specific information and suggestions** about activities to do with your infant, toddler, or preschooler,
- ♥ **Featured activities** for each age group,
- ♥ **How This Helps:** a summary of your child's development by doing these activities together,
- ♥ **Resources:** for more information about this topic, and
- ♥ **Suggested Books:** a list of books to read with your child.

Infants

An infant's initial movements are unconscious movements governed by reflexes, such as a newborn tightly grasping the caregiver's finger when it is placed in her palm. Voluntary control of these reflexive movements develop as the infant learns about her body from sensory stimulation and movement. The inner ear not only contains the complex structure responsible for hearing but for our vestibular system. Infants need stimulation of their vestibular system to develop their head, neck and body strength and control and balance and vision, which are interdependent.

You can nurture your infant's vestibular system and development by:

- ♥ Supporting your infant's head and trunk as you gently dance and sing to music.
- ♥ Rocking your infant on your outstretched legs while you are sitting on the floor so she is alternately lying back on your legs with her feet against your stomach and standing up. Hold her hands and gently stand her up as you rock your body backwards and bend your knees to assist. Try this with an infant who can lift her head while lying on her back and can bear weight on her legs, around 6 months of age.
- ♥ Sitting your infant facing you on your lap while you're sitting and gently bouncing her up and down or side-to-side to the rhythm of a song or nursery rhyme. Provide support at her trunk or hips as needed. Try this with an infant who is beginning to sit independently around 5-7 months.



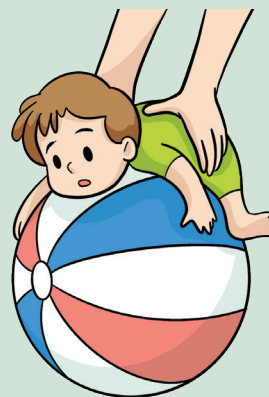
Activity for Infants: *Beach Ball Play*

What You Need:

Large inflatable beach ball

What to Do:

1. Place your infant on her tummy on the inflated beach ball.
2. Securely support her by holding the sides of her body.
3. Gently rock her forward/backward or side-to-side



(See page 5 for information on how doing these kinds of activities with your child helps her development and school readiness.)

Toddlers

For toddlers, learning about the world is all about doing. It is natural for them to move their bodies in accordance with their emotions. Just as they experience "big" feelings, they need to participate in big, whole body movements, e.g. running, jumping. They engage with their environment in a very active, kinesthetic (hands-on) way. This means that your toddler needs safe spaces and lots of opportunities to move and explore. When fully engaged in a physical activity, the brain and body are in-sync, in other words "mindfulness in action." Active play providing input to the vestibular system (movement) helps your toddler develop:

- ♥ physical coordination for gross and fine motor activities
- ♥ emotional regulation for attending and learning.

You can support your toddler's vestibular system and development by:

- ♥ Using rhythm sticks or wooden spoons to bang on an upside-down container or bucket. Ask your toddler, "How do you bang the sticks when you're happy? Mad? Excited?"
- ♥ Modeling and incorporating new movement



patterns as you move along with a fun song together, such as "The Floor is Lava" (for lyrics refer to The Kiboomers Kids Music Channel on YouTube).

- ♥ Creating a simple obstacle course with large boxes to crawl through, hula hoops to jump into and wide tape to walk across while balancing.

Activity for Toddlers: *I Can Do It! (Copying animal movements)*

What You Need:

Book *From Head to Toe* by Eric Carle

<https://www.youtube.com/watch?v=a-GcxJW8wVw>

What to Do:

1. Read the story with your toddler.
2. As you read each page, model how to make the different animal movements.
3. Ask your toddler, "Can you do it?"
4. When she tries to imitate the movement, say "You can do it!" Remember repetition helps the brain learn to move the muscle automatically -- so have fun reading and following along with this story over and over again. You can do it!



(See page 5 for information on how doing these kinds of activities with your child helps her development and school readiness.)

Preschoolers

As your child gains more motor and language skills, she learns to translate her physical explorations of the world into thinking, problem-solving and learning. Vestibular stimulation (movement) has a positive effect on speech-language development as the hearing system works closely with the vestibular system.

In a 2022 study published by Educational Psychology Review, researchers found that integrating whole-body movements into learning the alphabet improves children's ability to recall letter-sounds, a foundational skill for reading. Furthermore, active play triggers the release of brain chemicals that boost the cells of the brain to communicate with each other.

You can support your preschooler's vestibular system and development by:

- ♥ Providing open-ended materials that she can actively manipulate (e.g. construct and deconstruct).
- ♥ Pairing movement with imitating letter-sounds (e.g. moving like a snake while hissing sss sound).
- ♥ Providing opportunity (e.g. swinging, spinning) or materials (e.g. balls, scraves, bean bags) that allow movement through space.



Activity for Preschoolers: *Brain Break Movement Dice*

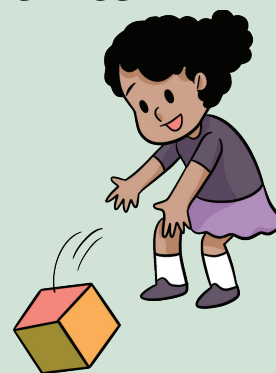
What You Need:

- 2 clean half-gallon juice or milk cartons
- Scissors (for adult use only)
- Ruler
- Markers
- Construction paper
- Glue or tape

What to Do:

1. Make the dice by measuring 4 inches from the bottom of each carton on all four sides. Draw a line and cut off the top portion.
2. Slide one carton (open side) into the other carton to form a cube.
3. Glue or tape construction paper on all sides of the cube.
4. Use the markers to help your child draw or write different movement activities (e.g. balance on one foot, hop like a frog, or march in a parade).
5. Take turns rolling the dice to decide what movement activity you will do together. Doing a quick movement activity as a brain break can help your preschooler focus, listen and engage in a learning activity

(See page 5 for information on how doing these kinds of activities with your child helps her development and school readiness.)



How This Helps

The activities suggested in this newsletter help promote many different aspects of development:

Physical Development

- ♥ Learn to use her body purposefully
- ♥ Develop control of large and small muscles

Social and Emotional Development

- ♥ Learn to interact with others
- ♥ Develop a concept of self

Language and Literacy Development

- ♥ Develop listening and understanding skills
- ♥ Use language to express herself

Cognitive Development

- ♥ Develop and applies an understanding of cause-and-effect relationships



- ♥ Develop an understanding of how things work

Kids in the Kitchen

Cooking teaches valuable lessons such as math (quantities, measurement), science (how matter changes), fine motor (stirring, pouring), and literacy (print awareness). As you make this recipe with your child, talk about kitchen safety. Show her how to handle items safely and allow her to do as much as she is capable of. Praise her efforts, and ask questions throughout the process to encourage her thinking skills. Most of all, have fun!

Easy Homemade Ice Cream in a Bag

Materials:

- 1 quart- sized re-sealable plastic freezer bag
- 1 gallon-sized re-sealable plastic freezer bag
- Ice cubes (enough to fill the gallon bag 2/3 full)
- 1/3 cup Kosher salt or rock salt

Ingredients:

- 1 cup of Half-and-Half
- 2 tablespoon sugar
- 1/2 teaspoon of vanilla extract



Directions:

1. Pour Half-and-Half, sugar and vanilla extract into the quart-sized bag; make sure you seal it well.
2. Fill the gallon-sized bag with the ice cubes and salt; shake to mix.
3. Place the sealed quart-sized bag with the Half-and-Half mixture on top of the ice cubes in the gallon-sized bag and seal it well.
4. Show your child how to hold the top of the large bag and shake it for 5-10 minutes.
5. Take turns jumping and shaking the bag to the Shake Break song by Pancake Manor <https://youtu.be/zl5QodAFuVk>
6. Once the Half-and-Half mixture has solidified, cut about an inch off one of the corners of the bag and let your child squeeze some ice cream into a bowl to enjoy!

Resources

A Better Way to Learn Your ABCs

<https://www.edutopia.org/video/better-way-learn-your-abc>

This short video from Edutopia shares new research on the benefit of integrating whole-body movement with learning letter-sounds, a critical skill that sets the stage for reading.

Active Baby, Healthy Brain: 135 Fun Exercises and Activities to Maximize Your Child's Brain Development from Birth through age 5 1/2

by Margaret Sasse

This book shares user friendly information about the crucial connection between movement and the health and development of a child's brain and body.



Suggested Books

Discover these books and more at the **Hawai'i State Public Library** www.librarieshawaii.org.

Infants and Toddlers

Move by Elizabeth Verdick and Marjorie Lisovskis

This book proves that clean-up time can be fun. Toddlers will want you to read this book again and again as they learn the song and join the fun of clean-up time.

Shake A Leg! by Constance Allen

This story has fun motions for a child to follow along as the Sesame Street characters demonstrate them, such as flap your elbows.

Preschoolers

Move! Learn How Different Animals Move by Steve Jenkins

This book playfully introduces the unusual ways that animals move and invites young children to follow them as they swing, leap and slide.

ABC Yoga by Christine Engel

This board book features colorful illustrations and playful rhymes to teach children simplified yoga poses paired with alphabetized animals and objects.



Learning to Grow is a project of the University of Hawai'i, Windward Community College, with funding from the Hawai'i Department of Human Services. Visit our website at www.learningtogrowhawaii.org or visit us on Facebook at www.facebook.com/learningtogrowhawaii