



Learn With Action –

Physical Activity as the Basis for Learning



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Birth to Three Institute



Objectives

Using Active Learning Exercises –



Materials that use movement and physical activity integrated with cognitive development

As a regular part of the day



Supports development in:

- Infants**
- Toddlers**
- Twos**



Active Learning Exercises

- Clear progression : Infant to Toddler to Twos
- Easy-to-do, common activities
- Structured into specific uses of movement towards learning goals
- Rhythm and motor skills
- Start, Pause and Stop and Calm Points



The ***Fitness Four*** for Early Learning

- Motor Skills
- Pre-Literacy
- Pre-Numeracy
- Healthy Body Awareness

PROGRESSIONS: Building Blocks

- Infant



- Toddler



- Twos



Active Learning Exercise Advantages:

- Use any space, from very small to large; indoors or outside
- Short 2-10 minute repeatable activities
- “One on one” OR in any size group
- No special materials - use only what a caregiver, parent or teacher already has



Research into Action

- Put into action the research demonstrating that active learning sharpens auditory discrimination and multiple-intelligence learning
- Young children listen to and process **information** through:
physical activity/movement



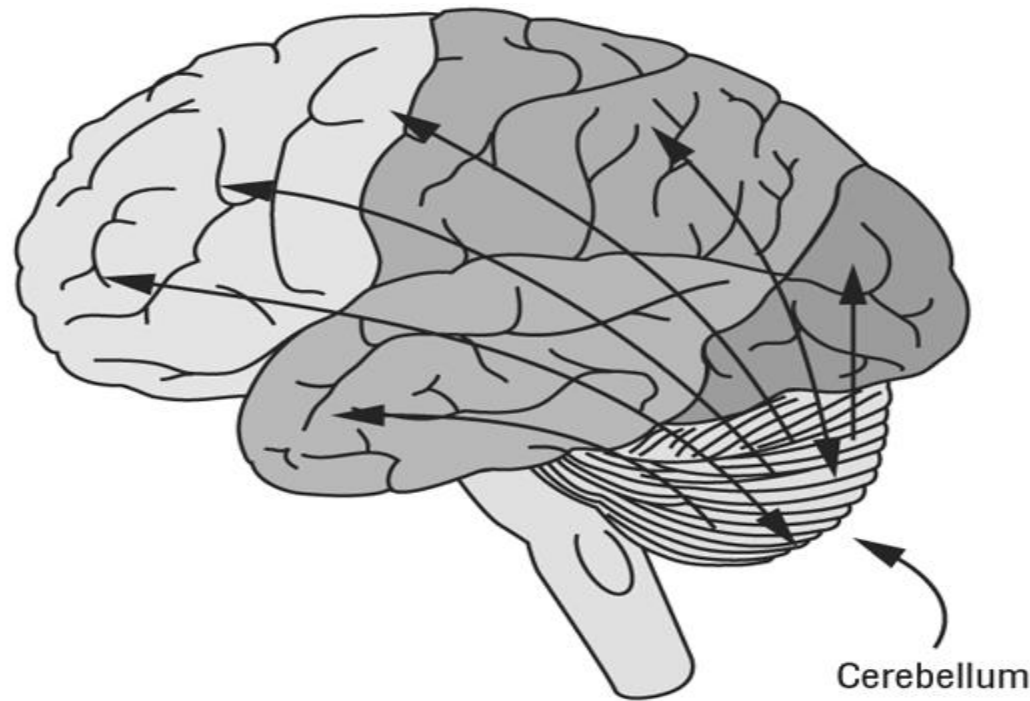
Research on Movement and Learning

Neurological Reasons for Engagement

- “Movement integrates and anchors new information and experience in our neural networks. Moving while learning increases learning.” (Hannaford, 2005)
- Brain derived neurotropic factor, unleashed and nurtured through repeated physical action, is “a crucial biological link between thought, emotions and movement.” (Ratey, 2008)
- Physical activity reduces stress and anxiety. The dopamine released increases “children’s capacities to control attention and store long-term memories.” (Willis, 2008)

Learning and Movement Processed in the Same Part of the Brain

(Jensen, 2005)



Information travels to and from the cerebellum, the brain's center of motor control, and other parts of the brain involved in learning, but most of the neural circuits are outbound.

Part of a Total Learning Experience

- Toxic Stress Reduction: through movement

- Total Learning:

“important for children to exercise their developing skills through activities that foster creative play and social connection, teach them how to cope with stress, involve vigorous exercise, and over time, provide opportunities for directing their own actions”

(Shonkoff, developingchild.harvard.edu, 2014)

- The Start of Modeling Executive Function:

children see and experience: working memory, mental flexibility, self-control

For Use with All Children (and Caregivers, Parents, Teachers)

- Children at all stages and rates of Development

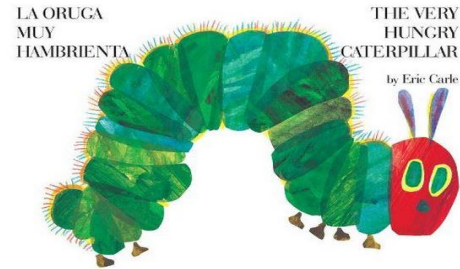


- Children with Special Needs
- Children with Physical Disabilities
- English Language Learners and their Families
- Connecting daycare, caregiver or school to parents and grandparents



This activity can be done with ANY BOOK! It teaches kids what happens in a story, the beginning of reading readiness ●

READ A BOOK, SHOW A BOOK



The Beginning - All stories start with something happening! Do what the caterpillar does!

The Middle -



All stories have actions in the middle that tell the Five W's – **Who, What, Where, When and Why** things happen.

Do what the caterpillar does!



The End -

Look at the last pictures. All stories have an end. Do what the caterpillar does!

Do the **3 Actions** again! It's fun! **Beginning, Middle, End.**

You can do them slow and then fast.



LEA UN LIBRO, MUESTRE UN LIBRO



- **El principio -**
- ¡Todas las historias empiezan con algo que ocurre! ¡Haz lo que la oruga hace!

- **El medio -** 

- Todas las historias tienen acciones en el medio que contestan **las Cinco Ws** (en inglés) – **Quién, Qué, Dónde, Cuándo y Por qué** ocurren las cosas.
¡Haz lo que hace la oruga!



- **El final -**
- Mirad los últimos dibujos. Hablad de por qué **es el final** de la historia. Todas las historias tienen un final. ¡Haz lo que hace la oruga!

- ¡Repetid **los 3 pasos!** ¡Es divertido! **Principio, medio, fin.** Podéis hacerlo despacio y después más r



Spatial and Body Awareness:

- Infant - Tickle Toes and Wrinkle Nose;
Wave Hand



- Toddler - Waving Game Dance –
Come Here/Bye Bye;
Toes and Nose!



- Twos - Let's Get Ready to Learn;

Touch Your Toes, Touch Your Nose!



Active Learning Exercises

Touch Your Toes; Touch Your Nose

Help the children increase flexibility and motor control.

How to Do It

1. Ask the children to sit on the floor in a circle.
2. Encourage the children to stretch their legs out in front of them. Ask them to lean over and touch their toes with both hands.
3. Ask the children to sit up and touch their noses with both hands.
4. Move your hands from your nose out in a wide circle away from your body, all the way around until you hide your hands behind your back. Encourage the children to copy you.
5. Ask them, "Where are your fingers hiding? Nobody knows! Let's count to three and you can surprise me! Count with me: One, two, three!" You and the children quickly bring your hands to the front and say, "Surprise!"
6. Repeat this sequence several times, as long as the children are interested.

Expand It!

Increase and decrease the speed of the parts of the exercise to increase the surprise and humor.



Up, Down, Move Around

BODY PATTERNS AND
SPATIAL AWARENESS

123

Let's Get Ready to Learn

Use this chant as a way to capture the children's attention and get them focused at the start of the day.

How to Do It

Invite the children to gather with you as you say this chant:

*I am ready to learn now,
And I see you are, too.
Let's put on our listening ears. (touch ears)
Ding, ding, ding, ding, ding.
Let's put on our watching eyes. (touch eyelids)
Ding, ding, ding, ding, ding.
Let's put on a funny nose, boop! (touch nose)
And our mouth. (tap open mouth, making "wawawa" sound)
Let's put on our big feet! (bend knees and tap feet loudly on floor)
Let's put on our tiny feet! (tap feet quietly on floor)
Let's put on our flying arms. (hold out arms and flap gently)
And our flying fingers. (flutter fingers with arms outstretched)
I am ready to learn now,
And I see you are, too!*



Material from *Up, Down, Move Around: Nutrition and Motor Skills* by Deborah Kayton Michals, ISBN 978-0-87659-417-9 [or 978-0-87659-471-1], is reprinted with permission from Gryphon House, Inc., P. O. Box 10 Lewisville, NC 27023. www.gryphonhouse.com.

Pre-Literacy: Rhythm, Rhyme, Stories



Infant - Swaying Name Song, Crawling.

Toddler – Twinkle, Twinkle Star Moves



Twos - Magic Land Moving Story;
Open Your Book



Pre-literacy Exercise for Toddlers



The First Rhyme Song: “Twinkle, Twinkle, Little Star”

Movements reinforce the rhythm and lyrics of a familiar song.

How to Do It

1. Choose a simple song to sing with the children, such as “Twinkle, Twinkle, Little Star.” Sit in circle time and sing the song first, just having children use simple hand motions to illustrate the lyrics.
Twinkle, twinkle little star, (wiggle fingers while dancing around)
How I wonder what you are. (open arms wide and look around)
Up above the world so high (dance while raising arms, wiggle fingers)
Like a diamond in the sky. (make a diamond shape with hands high in air)
2. Once they are familiar with the song, ask the children to stand up and sing the song, and have them add these motions:
Twinkle, twinkle little star, (wiggle fingers while dancing around)
How I wonder what you are. (open arms wide and look around)
3. Now add another fun movement. Say, “The stars are spinning!” Spin around and around in one direction.
4. Say, “Stars, stop! Now go the other way!” Stop and spin around and around in the other direction. (Changing direction keeps kids calm and stops them from getting dizzy.)

Expand It!

Children can be different kinds of stars: fast, slow, spinning slowly, spinning fast, twinkling a little, twinkling a lot, twinkling high, twinkling low, feeling heavy, or feeling light. Children can sit in a circle, and each child can take a turn being the star while standing in the middle while the others sing the song using only hand motions or tapping the rhythm on their knees.



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Pre-Literacy: Eye Tracking

- Infant - Watching Moving Objects
(Blue Birdie Flies) or People
- Toddler - Peekaboo Around the Room
- Twos - Elephant Trunks Walk-around



Pre-Numeracy: The Building Block of Opposites

Quantitatives

Infant – Near and Far

Toddler - Little and So Big

Twos - I Was a Little Baby,



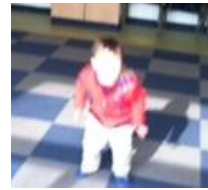
Now I'm Big!



Pre-Numeracy: Preparing for Numbers

Counting, Number Sense, One to One Correspondence

- Infant – Bouncing 1's and 2's
- Toddler – Bunny Hop 1's
- Twos - Jumping Jack Fun
(1's and 2's)



JUMPING JACK FUN!

JUMP WITH YOUR LEGS! Stop.
NOW JUST MOVE YOUR ARMS! ARMS OPEN, ARMS CLOSE Stop.
ADD COUNTING with ARMS! SAY 1! ARMS OPEN, SAY 2! ARMS CLOSE Stop.

NOW ARMS AND LEGS AT THE SAME TIME!
ARMS OPEN AND JUMPING LEGS
ARMS CLOSE AND JUMPING LEGS
OPEN AND CLOSE, OPEN AND CLOSE. Stop.

NOW SAY 1 AND 2, 1 AND 2 WHILE YOU DO IT!
SAY 1! ARMS OPEN AND JUMPING LEGS
SAY 2! ARMS CLOSE AND JUMPING LEGS

DO IT LOTS OF TIMES. TRY FOR 10 AND DO IT AGAIN!

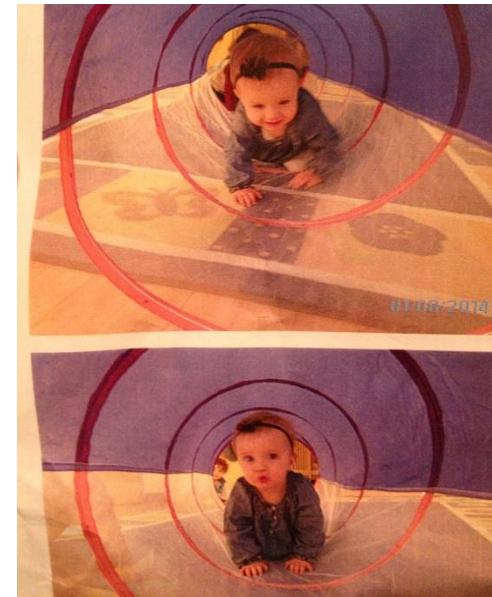


Action Patterns:

Infant - Clap Clap Peekaboo!
Crawl, Stop, Hello!

Toddler - Clap Clap, Run, Stop, Hello!

Twos — Clap Clap Tap Tap,
Jump, Run, Stop, Hello!





Motor Skills:

Infant – Carrying and “Flying”; Tummy Time

Toddler – Fly Like an Airplane,
Drive the Car (Bus, Train)



Twos – Plane/Train/Truck Game





Cardio and Action Processing:

Infant - Holding While Moving;

“Come Here/Bye-Bye” Hands

Toddler – “Come Here” Tasks:

Animals in the Basket,

“Boop”! Sounds;

Action Patterns

Twos – “Come over Here, Then Over There” Games:

Animals in the Basket, Clean-Up,

Jump Up and Touch the Target;

Obstacle Course.



Research on Young Children and Action Processing

Goals influence memory and imitation in achieving action goals

Loucks, Jeff and Meltzoff, Andrew (2012)



Crossing the Midline:

Infant - Reach and Grab;

Moving and Crossing the Midline

Toddler - Twisting;

Planting Flowers Game



Twos - Row Row Row Your Boat;

Ride Your Bicycle

(Hand, Hand, Foot Foot)

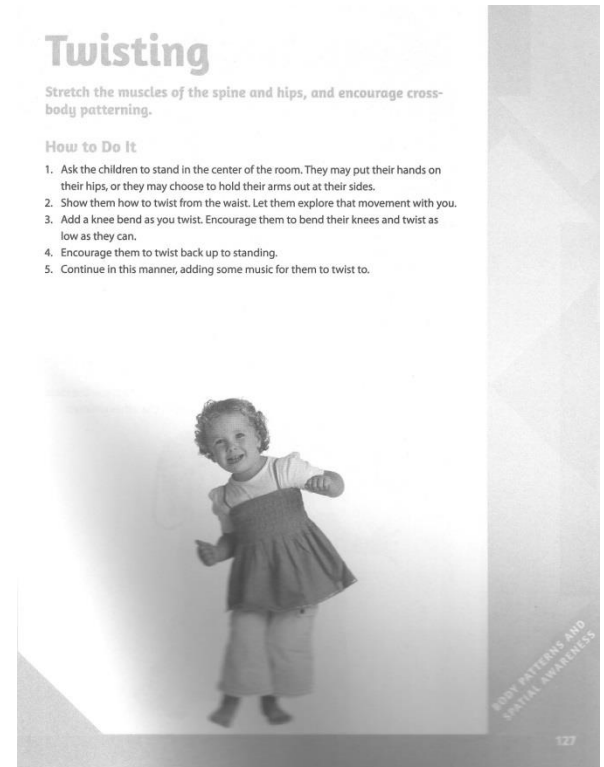


Twisting

Stretch the muscles of the spine and hips, and encourage cross-body patterning.

How to Do It

1. Ask the children to stand in the center of the room. They may put their hands on their hips, or they may choose to hold their arms out at their sides.
2. Show them how to twist from the waist. Let them explore that movement with you.
3. Add a knee bend as you twist. Encourage them to bend their knees and twist as low as they can.
4. Encourage them to twist back up to standing.
5. Continue in this manner, adding some music for them to twist to.



Nutritional Awareness: What We Eat to Be Healthy

Infant - Here Comes the Choo choo Train!

Toddler - What Do We Like to Eat?

Twos - Head to Toe, Make an O, These are Foods that Help Me Grow!



Nutritional Awareness: What We Drink To Be Healthy

Infant – Rocking and Feeding

Toddler – Let's Get Some Water!

Twos – Water Break Game!



Healthy Body Awareness:

Infant – Giggling; Being Taken Care of

Toddler – Wash Hands

Twos – This is the Way We Wash Dance



Calming:

Infant - Boop, Boop, Gentle Touch.

Toddler - Arms Up, Arms Down, Say Haaa!

Twos – Squeeze, Please, and Say Haaa!





Outcomes:

- Fitness Four Building Blocks:
 - Body Awareness/Motor Skills
 - Pre-Literacy
 - Pre-Numeracy
 - Health/Nutritional Awareness



Calming and the Start of Self Regulation

