

STRONG BODIES, READY HANDS:
THE PLAYGROUND PATH TO HANDWRITING
The Whole Child Alphabet

STACY BENGE, M.S.

Objectives

identify the importance of physical development

discover developmental stages

understand physical development and handwriting

create learning environment and experiences

sharing with stakeholders

play



poll

Which play experiences developed handwriting?

- Climbing trees
- Playing play dough
- Spinning on swings
- Playing dolls
- All the above

early literacy is
the whole child

developmental foundations

EARLY LITERACY

LANGUAGE

Receptive

Auditory
Sense

Phonological
Awareness

Cognitive

Expressive

Cognitive

Articulation/
Vocabulary

Social/
Emotional

Alphabet
Knowledge

Visual
Processing

Phonological
Awareness

LITERACY

Reading

Decoding

Print
Concepts

Print
Awareness

Print
Conventions

Comprehension

Language

Reasoning/
Memory Recall

Background
Knowledge

Writing

Composition

Language

Experiences

Social/
Emotional

Motor

Gross/ Fine

Eye-Body

Senses

Stacy Bengé

The Whole Child Alphabet

EARLY LITERACY

LITERACY

Writing

Composition

Motor

Language

Gross/ Fine

Experiences

Eye-Body

Social/ Emotional

Senses

EARLY LITERACY

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graph TD; A[EARLY LITERACY] --> B[LITERACY]; B --> C[Writing]; C --> D[Motor]; D --> E[Gross/ Fine]; D --> F[Eye-Body]; D --> G[Senses];
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LITERACY

Writing

Motor

Gross/ Fine

Eye-Body

Senses

literacy

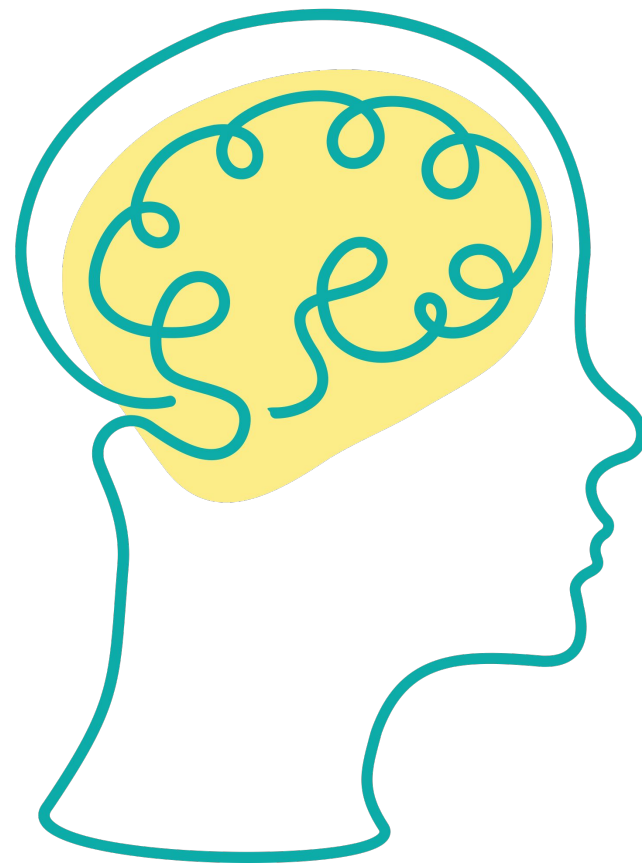
It is not a matter of teaching;
rather,
it is a matter of developing.

Stacy Benge, The Whole Child Alphabet



the brain

wired for survival



lean muscle

strives for proficiency

seeks efficiency

Experiences wire the brain;
repetition strengthens that wiring.

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Children's brains tell their bodies
what they need;
their actions tell us.

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rolling

spinning

jumping

running

twisting

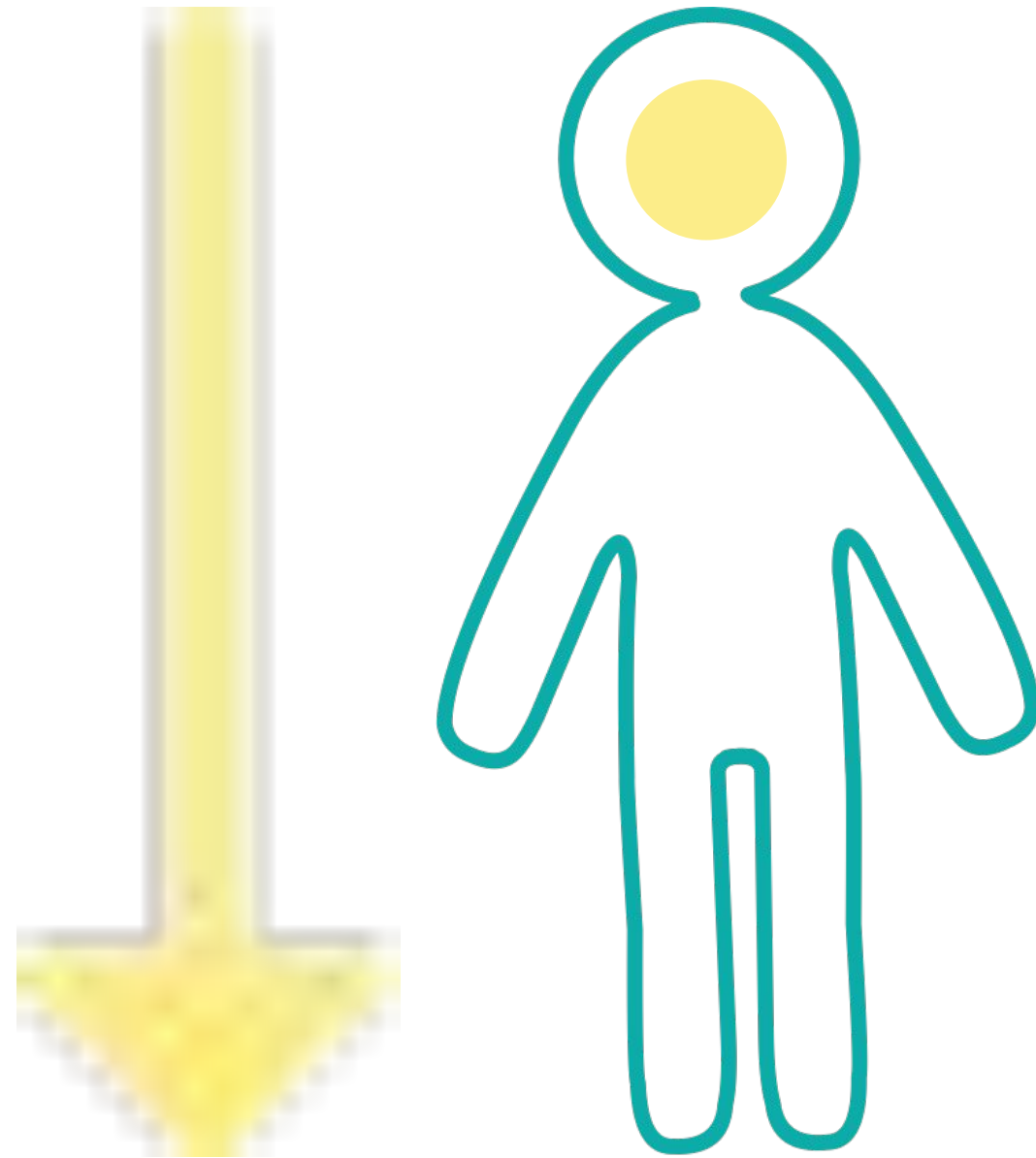
bending

physical development
components

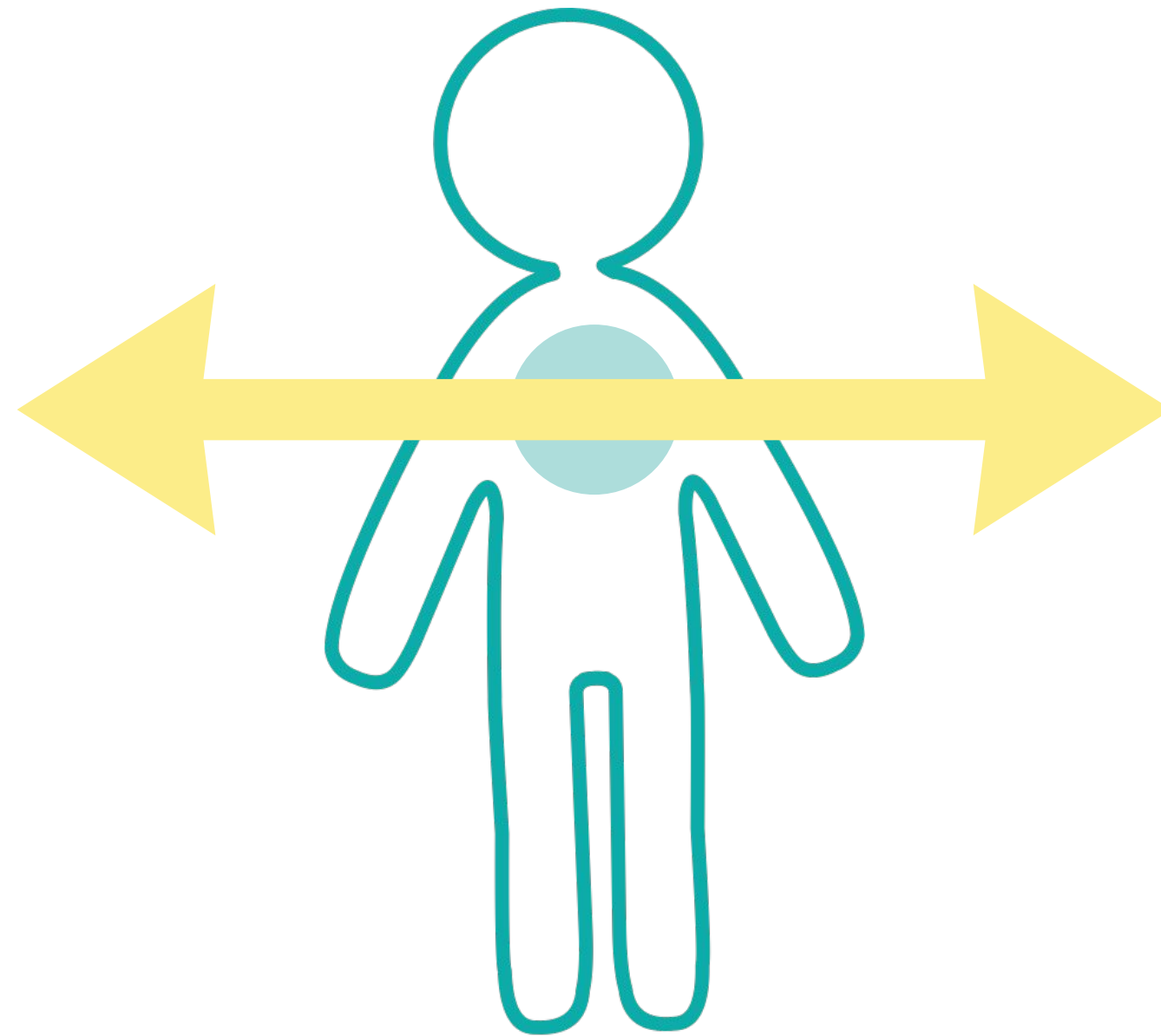
gross and fine motor

Cephalocaudal/ Proximodistal

Cephalocaudal



Proximodistal



By nature's design,
this logical progression ensures the larger muscles
are ready to support and transport smaller muscles
for more refined, detailed activity



Mobility on Stability

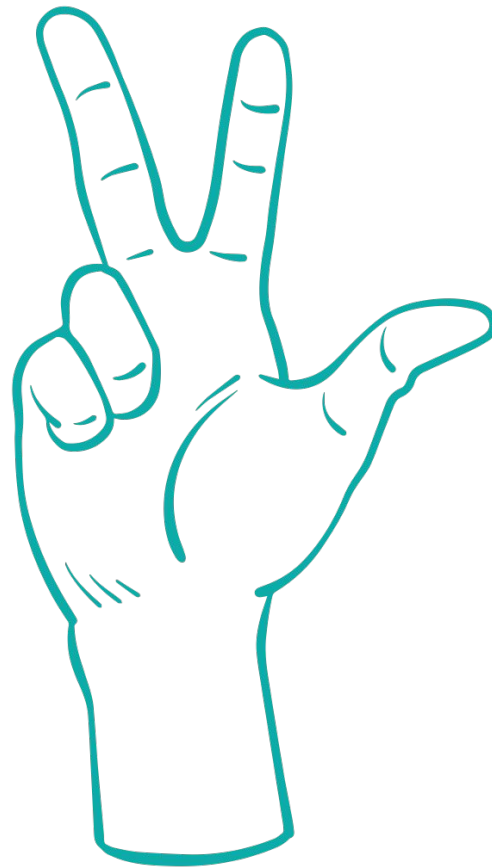
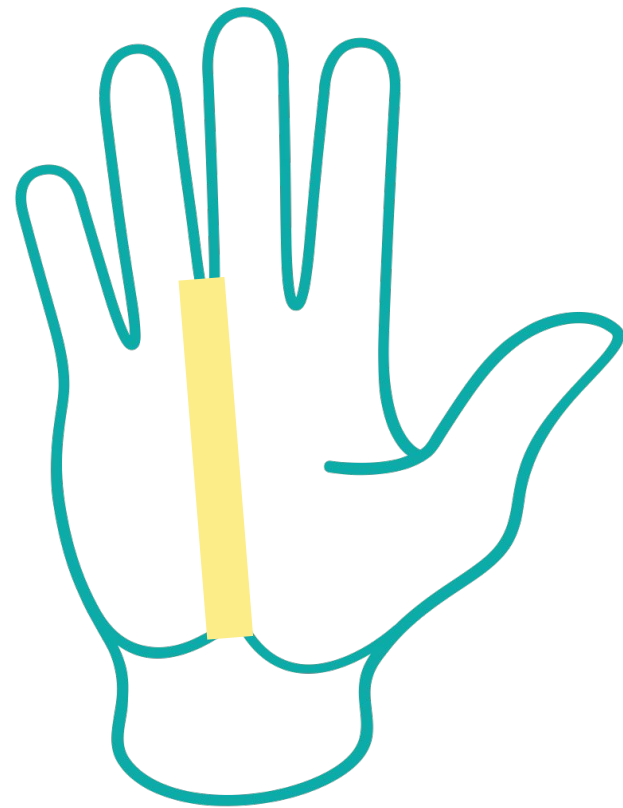
seek stability

Fine Motor Development

separation of hand

fine motor strength

Separation of Hand



mobility on stability

poll

What age do children typically develop efficient pencil grasp?

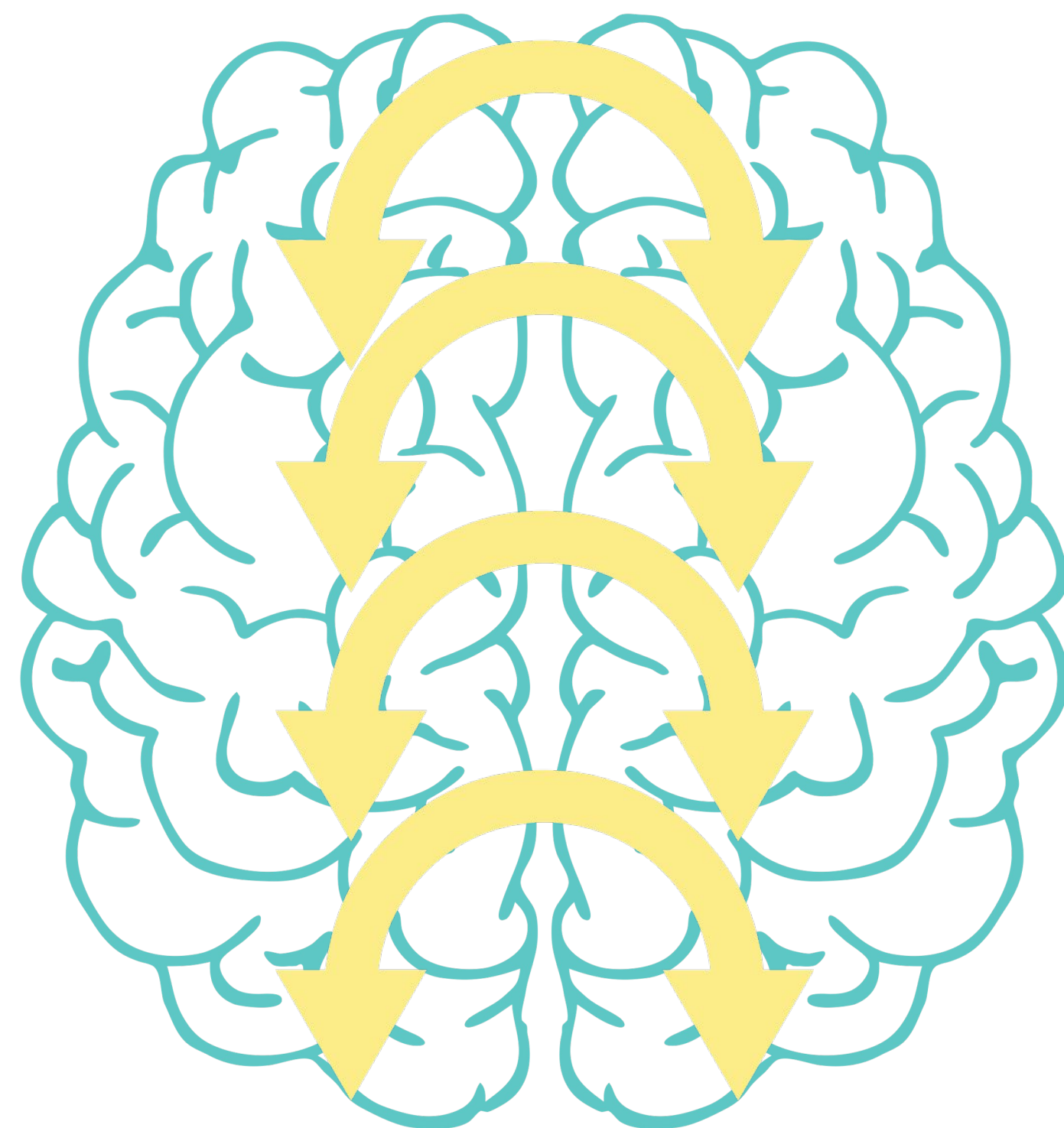
- 1 - 2 years
- 2.5 - 3.5 years
- 4.5 - 6 years
- 9 - 10 years

Acquisition of an efficient pencil grasp
is a process pattern development that usually settles
in later between 4.5 and 6 years old for typically
developing children.



midlines

Crossing Midlines



As midlines develop, they help children isolate individual body parts for independent movement, then work to coordinate movements involving multiple parts of the body.



bilateral coordination - symmetrical



bilateral coordination - reciprocal



bilateral coordination - asymmetrical



bilateral coordination - asymmetrical



mobility on stability

internal senses



Vestibular



The vestibular system controls five major aspects of
everyday living:
posture, balance, alertness,
concentration, and stillness.



Proprioception

Proprioception regulates how much force you need to use when completing tasks, such as ... writing with a pen without ripping the paper.



how do these systems develop?

Much like a muscle, if the vestibular and proprioceptive systems are not engaged and challenged, they will not grow and develop.





handwriting
development

handwriting



relies on entire body

being fully developed

and stabilized

non-dominant hand

the whole child alphabet

non-dominant hand

language and literacy

compensating to complete task



compensating to complete task





learning environments
and experiences

experiences

to build handwriting

A photograph of four young children in a classroom setting, focused on playing with colorful plastic blocks. In the foreground, a girl with dark hair in a ponytail, wearing a pink shirt, is building a tall stack of blocks. Next to her, a girl with long brown hair and bangs, wearing a red shirt, is looking down at the blocks on the floor. Behind them, another girl with long brown hair and a purple shirt is also playing. To the right, a girl with long blonde hair, wearing a pink shirt, is seen from the back, building another structure. The floor is covered with many colorful blocks in red, yellow, green, blue, and purple. In the background, there are wooden shelves filled with more toys and supplies. A semi-transparent teal banner with the text "child-led play" is overlaid across the middle of the image.

child-led play



outside time

Toddlers (12months to 3 years) could benefit from at least five to eight hours' worth of active play a day, preferably outdoors...

Preschoolers (3 to 5 years) could also use five to eight hours of activity and play outdoors every day

Angela Hanscom, Balanced and Barefoot



heavy work



climbing

digging

building

carrying

filling/dumping

A photograph of two children running in a grassy field. On the left, a young girl with dark skin and braided hair is running towards the camera, smiling broadly. She is wearing a red tank top with a lace hem and white pants. On the right, a young boy with light skin and blonde hair is running away from the camera. He is wearing a light blue polo shirt with yellow stripes on the sleeves and dark shorts. The background is a soft-focus green field.

running

skipping

stomping

jumping

heavy work

crawling
rocking all fours
bear crawl
hermit crab
body bridge
hand press



hanging upside down



materials

the floor

vertical surfaces

materials

crawl tunnels

scooter board

wiggle disc

riding toys

baskets/ boxes

wheelbarrow

hula hoops

materials

sensory table

building materials

finger puppets

play dough

clothespins

scissors

crayons

group time

transitions



crawling

bear crawl

hermit crab

side stepping

walk backwards

hopping



big body

sock ball throw
experiences

mazes

hot lava

blanket pull

bear hunt

music and movement



yoga/ stretching



moving forward

call to action

action plan

encourage play and movement

design environment/ experiences

identify and address barriers

poll

What hesitations prevent conversations with stakeholders about handwriting?

(check all that apply)

- Not sure how to get conversations started
- Lack of confidence in having the conversations
- Misconception of what all handwriting entails
- Pressure from stakeholders to get children ahead

sharing with stakeholders

invite the conversation

focus on child development

be knowledgeable and confident

advocate for child-led play

talking points

before children can write, they need to develop

core/ trunk stability - hold body upright and support shoulders

shoulder stability - support and bear weight of entire arm

wrist stability - support movement of hand

hand stability - support movement of fingers

vestibular - keep eyes, body, and hands steady

proprioception - regulate strength for holding pen

midline development - stabilize one hand while taking other across body



climbing

spinning

running

jumping

upside down





we are the experts

developmentally informed, developmentally responsive, developmentally meaningful

references

references

The Whole Child Alphabet: How Young Children Actually Develop Literacy

Stacy Benge, M.S.

Fine Motor Skills... Write out of the Box!

Marianne Gibbs, EdD, OTR

A Moving Child is a Learning Child

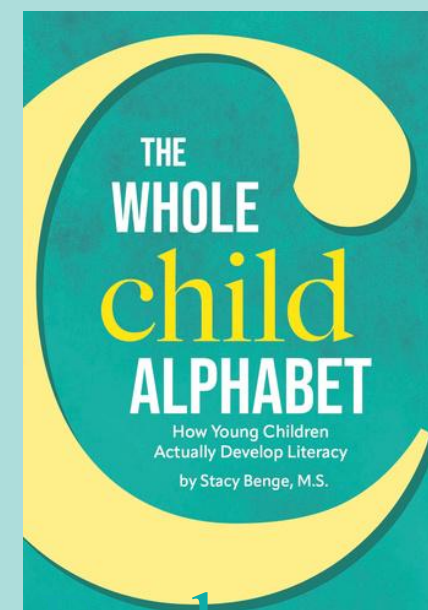
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Master Class:

How to Use Movement to Reduce Challenging Behaviors and Build Lifelong Success

Prerna Richards & Stacy Bengt



November 1, 2025

2:00 - 3:30 PM CDT

Strong Bodies, Ready Hands

the playground path to handwriting

Stacy Benge, M.S.

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~ *The Whole Child Alphabet*

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a lean muscle
strives for proficiency
seeks efficiency

"Experiences wire the brain; repetition strengthens the wiring."
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"Children's brains tell their bodies what they need; their actions tell us."
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physical development

cephalocaudal / proximodistal

mobility on stability

fine motor development

physical development

midlines

vestibular

proprioception

experiences

materials

group time

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Early Childhood Author and Speaker

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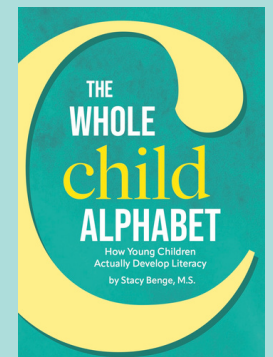
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