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*INFANT AND
TODDLER STEM
LEARNING AND
PLAY OUTSIDE*



*Workshop Three:
Risk-taking and natural loose
parts:
Opportunities to explore and
deepen learning*

Some opening thoughts about allowing children to have agency in their learning



When we make rules, we need to ask ourselves:

- Why am I driven to make this rule,
- What does it do to support the child,
- How might it stop the child's plan,
- Would this rule stifle creativity?
- Do the rules come from observation and a need to offer guidance

Risk vs hazard/danger

We often think of risks and hazards/danger as one category

How to build a secure experience for children with your team



Consider how your team feels about children's discoveries and the nature of children's learning.

- Does your team appreciate neat and convenient vs offering invitations?
- Is your team collaborative and comfortable trying things out?
- Is your team more curious or more concerned?
- How do you make space for flexibility within the rules?

Loose parts
appear
spontaneously
outside



Open-ended materials offer inspirations

Nicholson coined the term “loose parts theory” to articulate the idea that children benefit from being given open-ended materials. This means that the materials may be used alone or with other materials. They are movable and do not have a defined use; rather children may use them in a variety of ways.



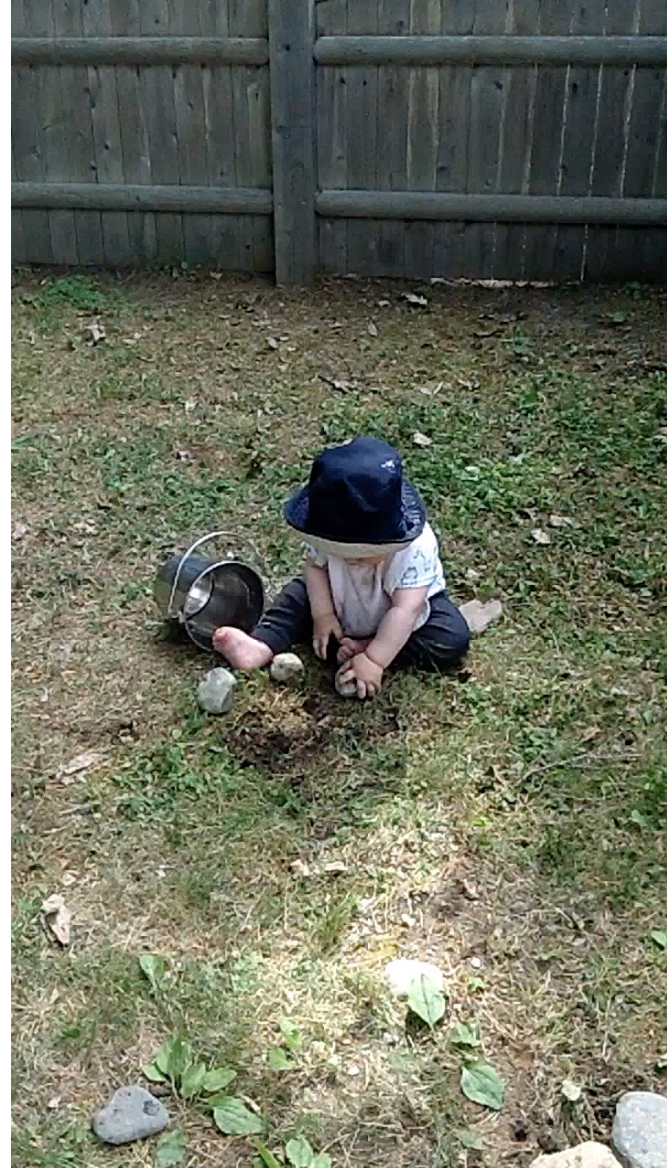


Loose parts have no rules for use

Loose parts do not have specific instructions of how the product needs to be used. Through exploration and manipulation of the materials, children figure out how they can be combined, redesigned, taken apart and put together in multiple ways.



Combinations of
loose parts inspire
exploration





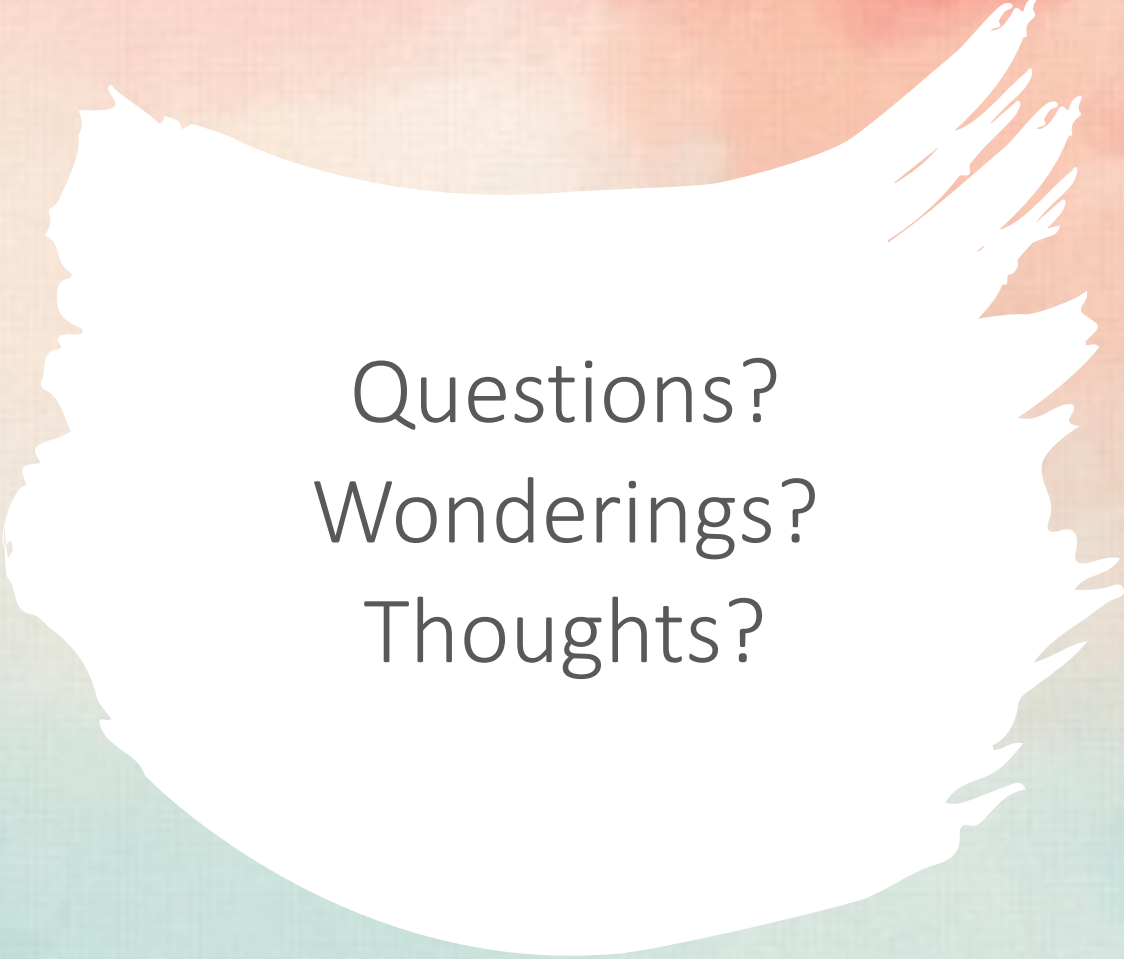
“Messing
about” leads to
“finding out”

When materials do not have a specific purpose, children feel invited to be curious about the items in their environment and then *mess about* with them.

Loose parts are easily accessible

They can see their ideas through to fruition independently, without having to break their play to seek adult assistance or risk pesky adult interference



A white, torn-edge paper shape is centered on a watercolor background. The background features a gradient from light green at the bottom to light orange at the top. The white shape has a scalloped, hand-drawn appearance with irregular edges.

Questions?
Wonderings?
Thoughts?



Loose parts can
be found
anywhere

Loose parts are materials that can be moved, carried, combined, redesigned, lined up and taken apart and put back together in multiple ways. They are materials with no specific set of directions that can be used alone or combined with other materials.

- Open ended
- Creative
- Captivating
- Sensory
- Natural or Synthetic
- Mobile



What type of material are loose parts?



Loose Parts: Stimulate the senses

- Sensory: Color, Texture, Sound
- Creativity: Art, Design, Symbolic Play
- Action: Movement, Transportation, Connecting/Disconnecting
- Inquiry: Construction, Investigation, Correlation



What speaks to you as you watch this?

What do you notice about the play?

What do you notice the teacher doing or not doing?

Loose Parts: Provide meaningful play

- Active Learning
- Critical Thinking
- Divergent Thinking
- Support Developmental Domains
- Research shows children choose loose parts over prescribed toys

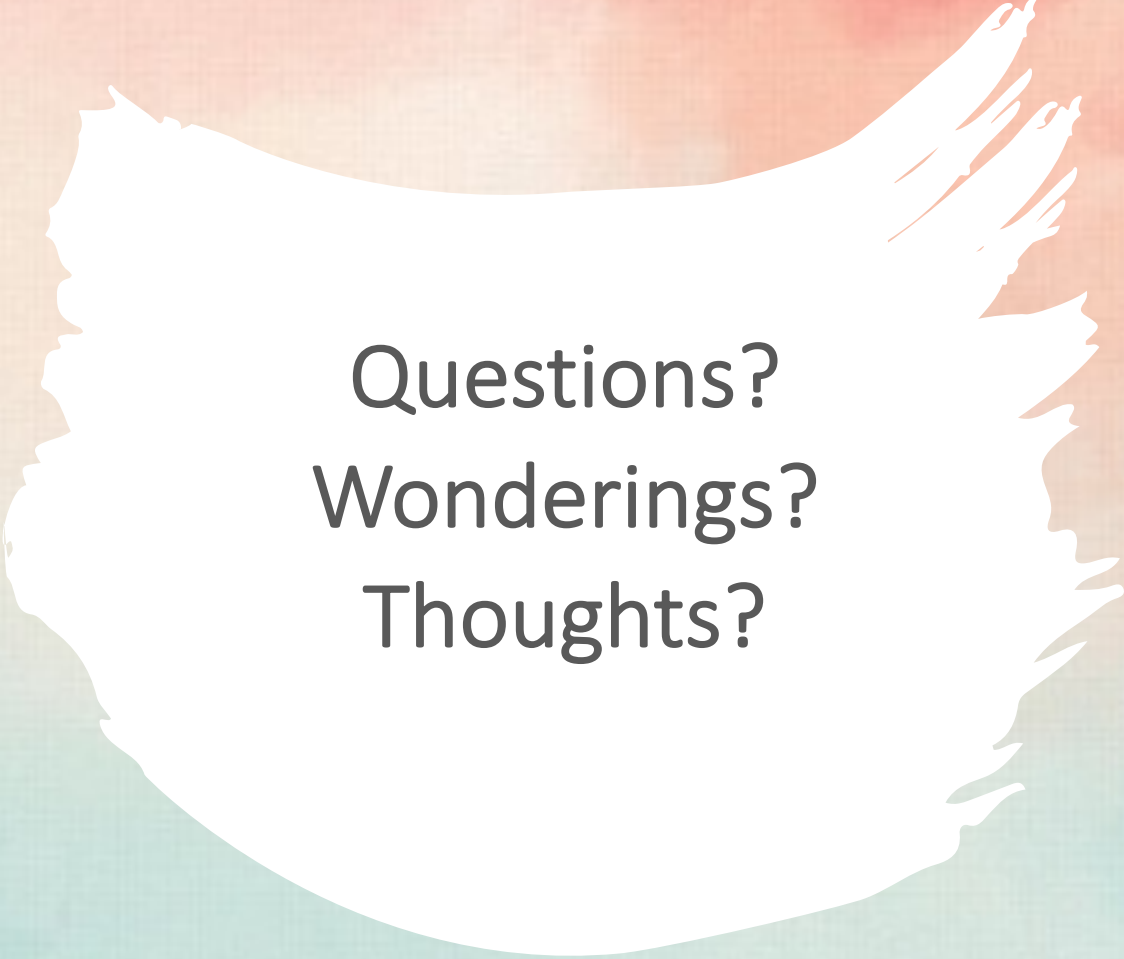


Time + loose parts = creative play

The beauty of having a myriad of loose parts in a playground - and the time and freedom to use them as they please - is that the children can carry out their complex play scenarios in endless creative and imaginative ways.





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“Risk is essential
to childhood”
The outdoors is
key in offering
risk.



Risk perception is
like a muscle that
needs to be
developed and
flexed





Knowing the difference between danger and risk

- Danger and risk are different, and we need to teach children the difference between danger and risk.
- Being dangerous is letting a child play with matches unattended.
- Embracing risk is showing them how to build a fire safely so they won't get burned.

Outdoor time every day is essential. Not just in the neat and controlled environment. Encourage children to poke around under hedges and permit them to leave you in a safe area.

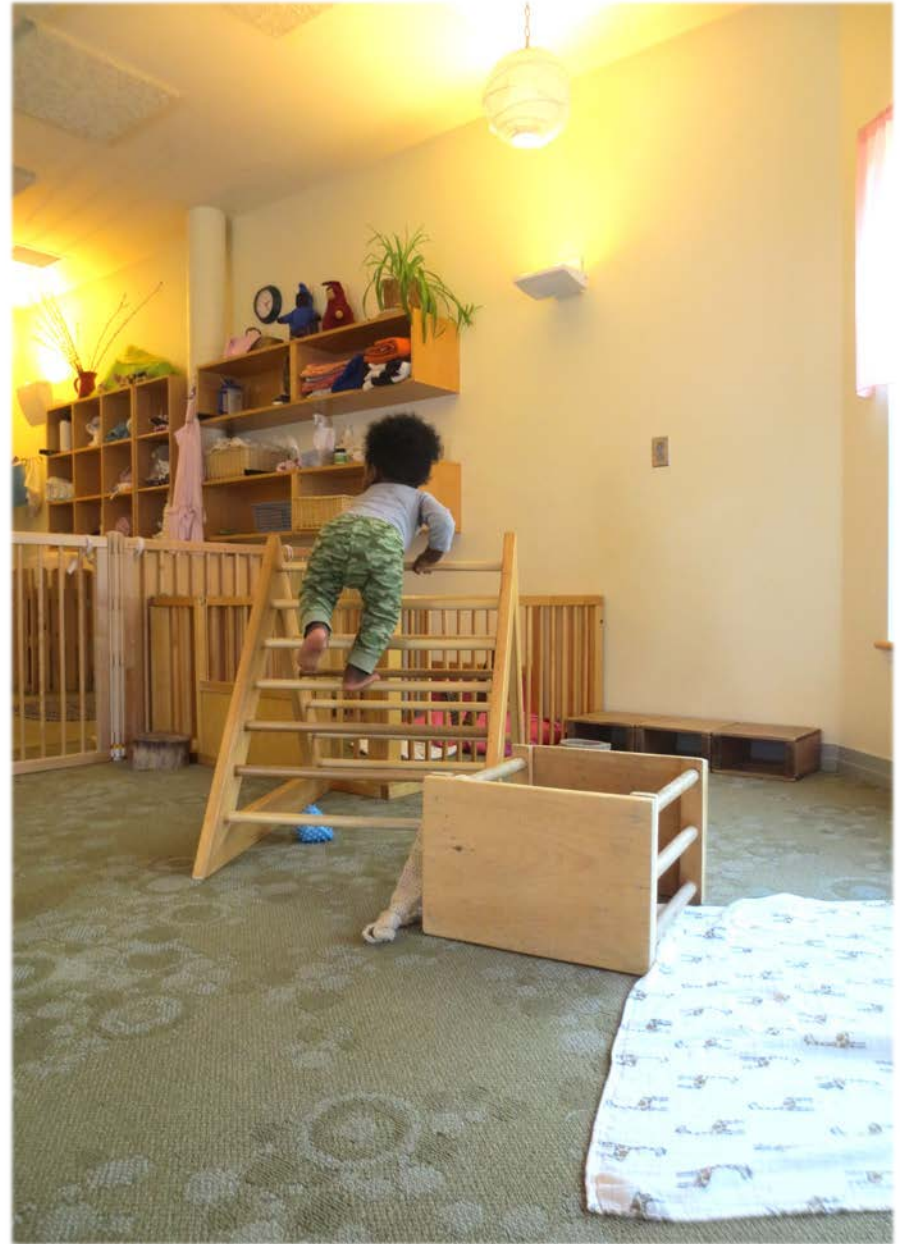




Exposure to healthy risk, particularly physical risk, enables children to experience fear, and learn the strengths and limitations of their own body.



Parents and caregivers need to work together to give our children real childhoods where scrapes and grazes, falls, and panic are normal.



What questions does this example bring up for you?

Are you uneasy that about the child potentially falling or getting hurt?

If their parent was watching with you, what would you do?





There are short-term and long-term effects for children who do not experience risk-taking.

When risk-taking is limited, children will create ways to challenge themselves. This can result in an increase of unsafe risk, a lack of desire to engage in curious, creative and challenging play; and the lost opportunity to build confidence, judgment, competence, and self-esteem through kinesthetic and physical play.

One of the long-term outcomes of limited risk-taking is children who do not experience the lessons and learning gained from risk-taking, when it is either positive or unsuccessful, will show poorer risk judgement in the future.



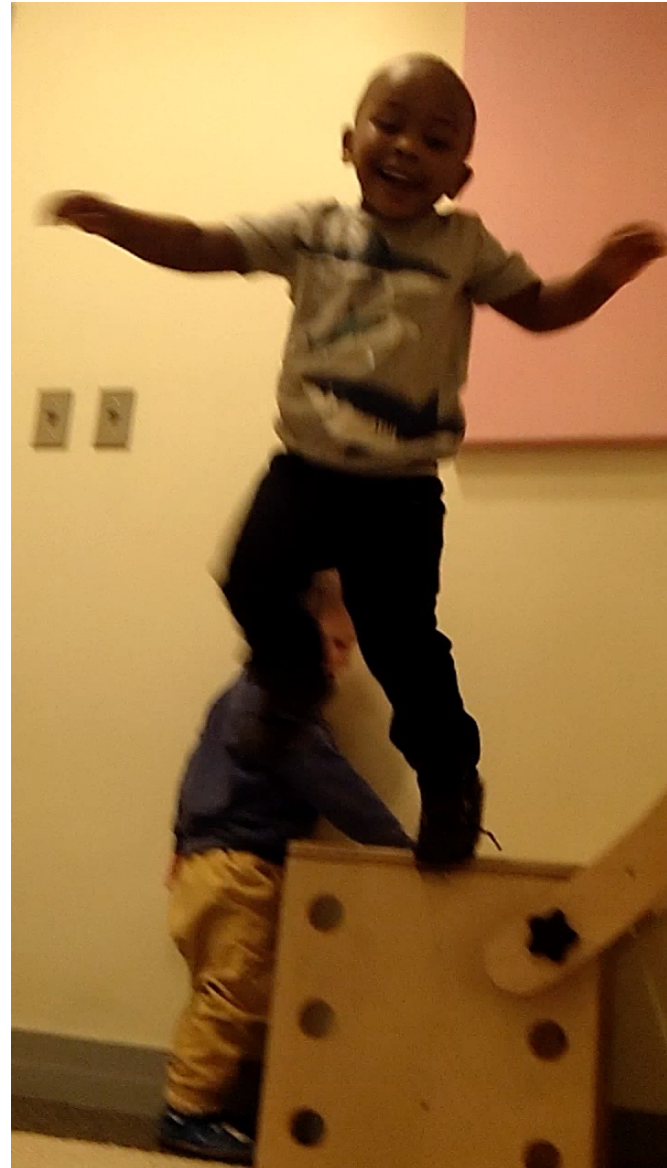
Society's risk-averse attitude to young people's lives affects everything from school-based activities to the design of play areas, where eliminating any potential danger or cause for future litigation is the highest goal.



Is this a scenario you might stop?

Does this feel familiar to examples you see in your classrooms?

Do you notice any benefits that the children are experiencing? If so, what are they?





Being
overprotective
can increase
anxiety for
young children

These days, parents seem to go out of their way trying to protect their children from hurt feelings, harm and even failure. Without even realizing it, we're doing things for our children rather than teaching them.


How do we balance giving children space and helping them?

- We need to promote constructive failure. children can't be afraid to face the normal repercussions associated with taking risks.
- We want to give them room to grow and develop, but also want to keep them safe and help prevent them from making bad choices.



**What reactions do you have to this video as an educator?
Would you move in when the infant fell?
Would you pick him up? Talk to him?
Would you keep observing?**



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Getting back to the simplicity of free play

- The benefits of free play can lead to learning opportunities, negotiation skills, sharing and decision-making. We know free play is good, but how does this translate to daily activities?
- It means no adult interruptions, no restrictions, and no added rules during playtime. When children have room to explore and learn on their own, amazing things happen.



Do things with
kids—but not for
them

- Sometimes we must show kids what risk looks like.
- Most of the traits we want for our kids—resilience, confidence, empathy, academic achievement—flourish when adults and children have time to be together and experience role modeling and positive support.



Let children try things on their own

- They figure things out on their own. They learn how to share. They invent new ways of doing things. Even at a young age, it's setting them up for future success.
- This is how they learn about themselves.

In conclusion...

- The early years are meant to be a time for the brain to prepare for learning.
- Optimal brain development during early childhood occurs when children have emotional safety and time to play.
- Observation is critical to planning curriculum that supports learning through play. Curriculum planning should be cyclical and aimed to deepen the child's interests and investigations.
- Early Childhood Educators are responsible for understanding the concepts and practices of STEM education and for conducting authentic assessments on the learning that occurs through play.
- The use of loose parts and allowance for risk in play is essential for STEM learning to occur and for optimal development.

