Setting the Stage for Children's Engagement

How to use children's play-based experiences to build a curriculum that embodies STEM standards

From Session One:

- True Play is critical for optimal learning for young children.
- Conditions for true play to emerge are emotional safety, attached relationships, needs are met and so the child is at rest.
- Learning occurs through play and with adult support through extension and observation rather than direction and instruction.

Our Left & Right Brain

- Oriented on **DETAIL**
- Decontextualized
- Looks for the **ANSWER**
- Wants a **RULE**
- Finds **FACTS**

- Oriented on the **WHOLE**
- Contextualized
- Sees the **BIG PICTURE**
- Creates a **VIVID** image
- Knowledge that is **COMPLETE**

Right side of brain develops the most during the first 7 years of life, specifically during preschool years

Instructional experiences develop the left side of brain only

Optimal mature brain development relies on both right and left side being equally developed and connected

McGilchrist, Iain; 2010 The Master and his Emissary

INTRINSIC AND EXTRINSIC LEARNING

Finding a path to prepare children for academics

INTRINSIC LEARNING

A journey into the world through child-led discovery

Intrinsic learning comes from within, it is child-lead, interest-based, and exploratory.

Extrinsic learning is delivered to the child from a curriculum or lesson that is prescribed. This type of learning is led by the educator, based on prescribed goals and objectives, and typically generalized for age/grade.

THE ROLE OF PLAY IN INTRINSIC LEARNING

- The National Science Foundation (2001) suggests that active learning involves a process of exploring the natural or material world and triggers questions leading to discoveries to reach a new level of understanding.
- Through active exploration children seek information and insight about their questions and interests in things that matter to them. They construct meaning and resolutions about their area of curiosity rather than being focused on the right answer or outcome.
- Intentionally designed play environments provide children with time, materials, and opportunities to exercise the core of their daily experiences; their sense of curiosity, their questions, ideas, and observations and discoveries.

Implications for Educators

- The body of research we have discussed tells us that school readiness occurs when play is a valued and intentional part of the curriculum rather than early instruction.
- When educators begin with direct instruction in the early years, the child's brain is less developed because of the lack of context and interest-initiated play.
- Current 'schooling' is a work motif, not a play motif so our work in preschool is to preserve play as the path to preparedness.
- Work motif includes outcomes, rewards, consequences and an ability to hold on to the outcome while participating in a "fun-less" activity.
- Until a child shows mixed emotions/thoughts (the 5-7 shift) they are not ready for the work motif as they can't see other's perspectives or understand "on the other hand".

Presence & Interaction

As children grow, they develop focused attention and so, their play deepens

- As children develop cognitively and acquire language, this leads to longer episodes of focused attention.
- The term “focused attention” refers to a designated activity during which “attention is directed exclusively to one task.”
- Group-care, by definition, can be disruptive and distracting so caregivers work to minimize the impact of group care on children’s learning.

Creating a learning environment means few interruptions to children's play

- Brief interruptions can end young children's on-going activities. Older children (six-years) were better able to respond to interruption without disrupting their play.
- Three-year-olds were unable to return to their play without adult prompts. If the play resumed, the focus was less intense.
- Children as young as twelve, twenty-four, and thirty -six months are just beginning complex and symbolic play. They have poorly developed control over focused and sustained attention.

Observing Children's Play

Close observation

- Simply watching play without judgement and thinking about what to do next is a good first step.
- Listen to the child. What do you hear them saying? When you listen to their words, you may gain information about what you are observing.
- Identify how the child moves, what their facial expressions are, and how they experience the materials. What do you see them doing? When you watch the actions carefully, you may gain information about what you are observing.
- Record what you hear and see as the basis for your notes making sure to describe this scene with objectivity.
- When you are in a meeting or on your own review your notes and think about the next steps.

Close observation

- The quality of anecdotal notes depends on a teacher's ability to be a neutral observer; checking assumptions and biases at the door. This means avoiding the child "always does this" or "insists on acting this way".

- Review notes to check for bias before meetings and discussions with others so that a conversation is focusing on what is there not what is assumed. We want to avoid building observations where we think that a particular child is always the problem…

ANECDOTAL RECORDS INCLUDE:

- Brief notes grounded in close observations of children
- A focus on what was occurring during play.
- Formative assessments that are authentic and focus on specific, real-life tasks.
- Efficient note-taking where using abbreviated language is helpful.
- Observations that are grounded in evidence (what the child said or did rather than a description of “child liked this”).
- Word choices that avoid “can’t” or “doesn’t” but tell the story of what was seen.

Organizing and managing anecdotal records

- Establish a system that works for each team and each team member. This may include postts, a small note pad, a group notebook, or another strategy.
- Daily note taking is important so make the notes easy to write as they are a basis for reflective practice.
- Be selective about the behaviors observed. In this case we are building curriculum about STEM so the focus would be on that play.
- Consider breaking the large group you are observing into smaller groups (for yourself to observe). It makes observations easier if you observe the sand pile area, the climber, the garden, the block area, rather than the whole play yard.
- Post-its, index cards, bookmarks– all of these can work as systems

Reflecting and using anecdotal notes

- Reflection and anecdotal notes should be inextricably linked and serve as the foundation for instructional planning, helping teachers think more deeply about the children's growth and learning.
- These records allow caregivers to generate questions and hypotheses that fuel observations so that this type of assessment is ongoing, strategic, and purposeful.
- Adopting this approach ensures that children are viewed from a strengths-based perspective and teachers are better informed about their learning and so plan for richer curricula.

Implications for practice:

What keeps us from routinely recording observations to inform our work?

Curriculum Planning

Insights on Creating Experiences for Children:

Standards	Curriculum / Lesson Plans	Children's Experiences
Standards are created by national or statewide professionals.	Teachers us the standards to create curriculum, set environments and carry out lesson plans. These plans instruct children about what to play with, which activities to engage in, and ultimately what to learn during certain times of the year.	Children in the first five years learn best when their learning is self-led. They appear to fail or need remediation when they are taught through instruction. When a child enters an environment that reflect expectations and outcomes in the context of play, they thrive.

Insights on Creating Experiences for Children:

Children's Play	Curriculum Planning	Documentation of Learning / Assessment
Teachers create safe relationships between them and their children, and rich, well thought-out, designed space for children to engage freely in true play. Materials are offered with an eye on open-ended use and extending their play interests.	Careful observations and intentional planning creates an environment that extends children's natural play through preparing investigations, collecting and arranging materials, and fostering a sense of inquiry.	Teachers, document play over time, noting interests, skills, abilities, and where children are meeting national/state standards as they play.

Team Teaching Approach

- When working from observation into curriculum planning and eventually towards meeting learning goals, a collaborative or team approach is ideal.
- Team teaching is especially important when we work with larger groups of children.
- Varying observations, perspectives and ideas provide a provocative discussion about how and what children are interested in and learning.
- Creating time and space for collaborative teaching.

Identifying Play Themes

- Broadly, what ideas are children playing with?
- Social Dynamics
- Roles & Responsibilities
- Physical Abilities
- Problem Solving, STEM themes

Questions of Play

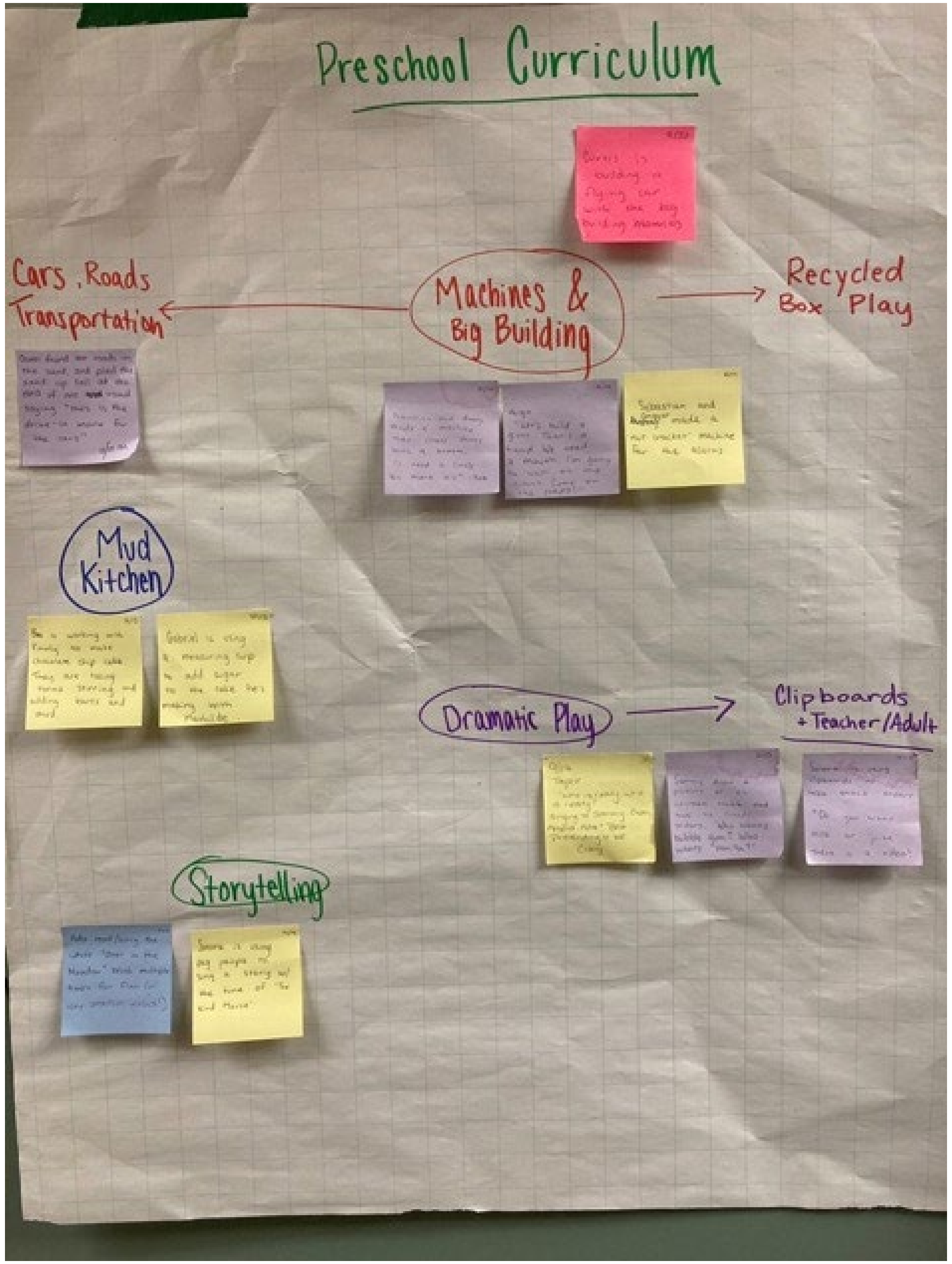
- What questions are the children asking?
- What observations are the children making?
- What are you hearing vs. what are you seeing?

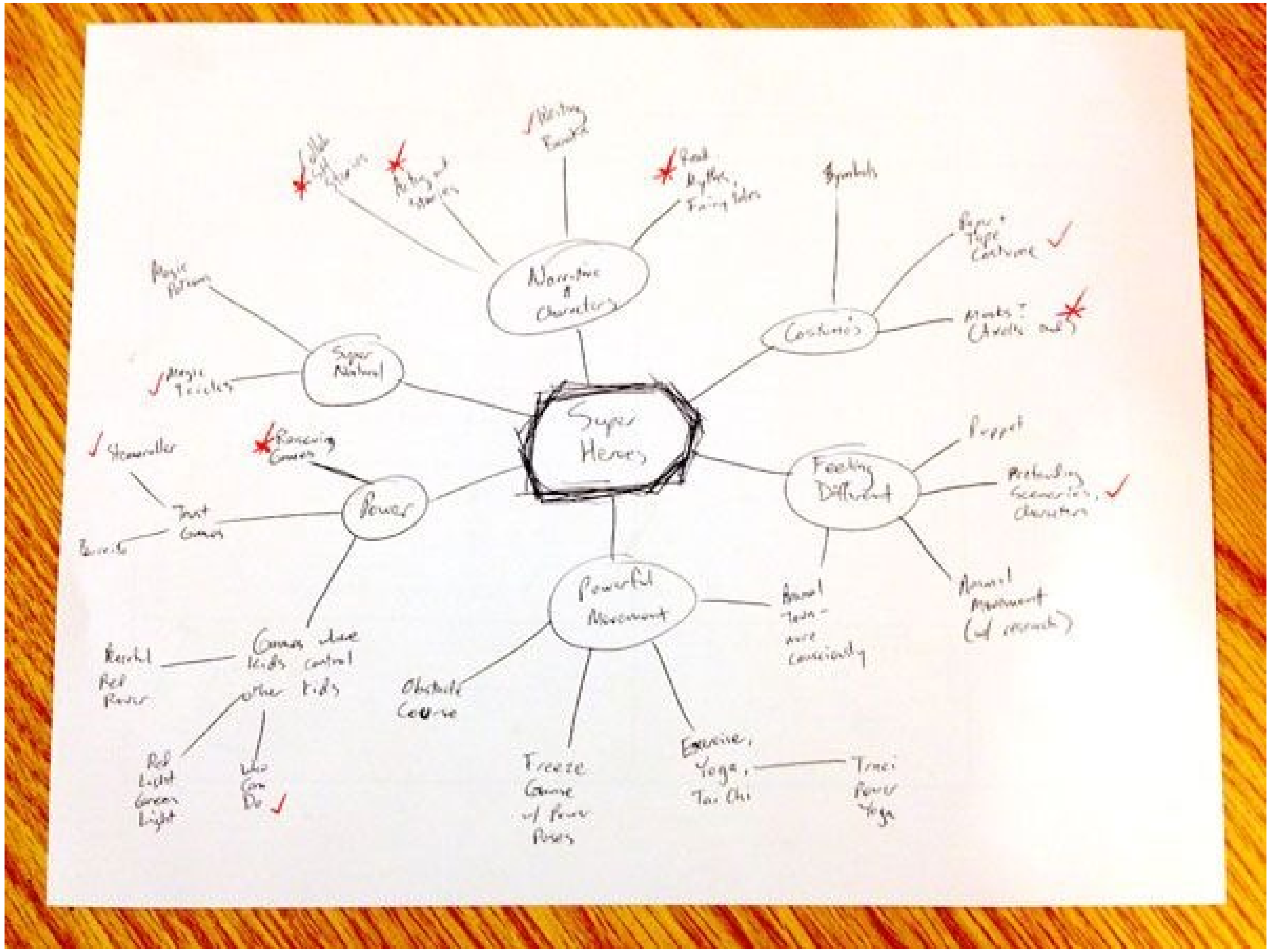
As a team, organize the many questions and themes of a child's play, highlighting possible directions the play may go.

Creating a Curriculum Plan:

- A flexible plan is created to ensure the stage is being set for children's play to deepen and extend.

  - Weekly Materials
  - Curriculum Webs
  - Seasonal Plans
  - Group Dynamics / Peer Relationships
  - Classroom Care / Community


Preschool Curriculum
Cars, Roads Transportation
Machines & Big Building
Recycled Box Play
Mud Kitchen
Dramatic Play
Clipboards + Teacher/Adult
Storytelling


Super Heroes
Narrative & Characters
Costumes
Super Natural
Power
Feeling Different
Powerful Movement
Symbols
Puppet
Magic Potions
Magic Tricks
Obstacle Course
Freeze Game w/ Power Poses
Exercise, Yoga, Tai Chi
Red Light Green Light

Mar.	Morning Welcome	Books & Stories	Chores	Circle	Art	Projects:		Teacher Work	
March 1-5	Opening the Yard: Checking the climbers for ice and safety Snow Shovels for scooping water from the river, metal shovels to break up ice if there is some Arrange boards and pallets in the river for balancing Collect sticks for fishing in the river Setting up the mud kitchen with new kitchen materials- see mud kitchen section for details Set up a basket of chiffon fabric for imaginary play Set out the window blocks with peg people and animals in the shed	Books: Book baskets rotated from #4 to Classroom, Outdoor book basket Choose a "special book" to be put up on a shelf and taken down for book time Before Lunch Story: Katy and the Big Snow By: Virginia Lee Burton Nap Story: Crary: Waiting for Spring Emily: Waiting for Spring Aleeza: A Home For Winter	Mon: Clean ice and mud off the deck and benches for story Tue: Dig boards out of snow for bridge building on the river Wed: Arranging sticks near the river for fishing Thu: Organize kitchen materials in red blue and green bins for rotation of toys Fri: Water the plants with the children in the morning	Winter, Birds and Snowflakes Let's Put On Our Mittens Oh Where Do You Come From? Snowflake Song Chickadee Song A little brown bulb lay asleep in the ground... Chickadee Chickadee Flitting Through The Holly Tree (Verse) Snowman	Morning Indoor: Collages with paint, tissue paper, and ribbon pieces Makers Station: Cutting ribbon creating decorations with ribbon and dried flowers to put around the classroom Art Room: Finger Knitting and Twist Ties Afternoon Indoor: The Mitten Puzzle Sewing with yarn on the crocheted squares Beading with wooden beads and shoelaces Playdough: Sticks, Pine needles, animals and wooden people. Mixing blue and white playdough together	River Play: Creating bridges and docks with wooden boards and pallets. Using PVC pipes to direct water flow. Balancing over the bridges, fishing with sticks, moving water with buckets and shovels. Sitting in "sled boats" and pulling each other around Imaginative Play Restaurant/ Kitchen Play- dressing up with aprons using menus to take orders and clipboards to take notes Building with stumps, chairs and wooden arches in the block area (Rocketship, truck etc.) House -taking care of babies, tucking them in, taking them to the beach and cooking breakfast for them. Using scarfs and gloves to dress up for family play Mud Kitchen: Set the picnic table using plates spoons, copper tins, big bowls for mud and buckets for scooping and transporting water from the river to the fairy garden. Observe these materials and bring observations of the mud kitchen to the next curriculum meeting	Self-Regulation and Scaffolding River Play How children at different developmental stages are handling river play. Younger children exploring sensory experiences, gross and fine motor skills changing clothing repeatedly, balancing on boards and in the water. Older children finding ways to reframe their game so it works outside of the muddle, reminding each other using water mud in creative ways instead of lying down in it. How they help each other, how we scaffold play for them. Manipulative Table: Window blocks with wooden people, wooden arches, and winter animals to add a story telling aspect all in the shed for cold days Indoor Morning Plan: -Light Table Story Basket -Collage on Crary's tables -Maker's Space/ Decorations at Aleeza's tables with ribbons and dried flowers - Three small wooden puzzles on small square table -Story Telling Baskets -Brown chair under the play stand with books -Big building (stumps, arches, stools, rocking chairs and chairs, play stand house/fort)	Redirecting water, creating streams Tidy play areas, river pallets and kitchen area Collecting sticks for fishing Sweeping mud off surfaces Sweeping off the deck and platform Documentation & photography following the portal list Cleaning toys and organize into three colored bins Sweep the shed	**To Do List:** • **Memorize stories** • **Find Story pieces** • **Clean and refresh centerpiece bowls** • **Add new animals to outside manipulative table** • **Print a copy of the curriculum for the shed, put in a plastic sheet taped to the door** • **Bring the window blocks to the shed** • **Put lego blocks in the attic of #4** • **Make a basket of yarn for finger knitting in #4** • **Collect dried flowers for makers station** • **Refresh inside story baskets using the criteria in the folder**

COMPONENTS OF STEM

In play that includes STEM learning, children test ideas, investigate through physical participation, bring desired results through action, create a plan, find the best answer or solution, make errors, collaborate with peers, ask scientific questions, and adjust to their bodies during growth and development.

Continuous Cycle of Play-Based Curriculum

- Play based curriculum is cyclical, not linear.
- Children build off play from the previous days and weeks. It's important for a teacher to provide opportunities to deepen play already occurring
- Invitations to investigate or ask questions can be done silently by setting up the environment or directly by engaging with children.

Continuous Cycle of Play-Based Curriculum

- Setting and resetting materials daily will engage children back into their play upon re-entering the space
- Setting up spaces to scaffold learning occurs as you keep some materials, add new and take away others slowly over time.
- Each time you change materials, offer an activity, or engage with children you observe again and re-visit the play in your planning.

Implications for Practice

- Given what you have heard so far, identify a goal and/or next steps for you individually or you and your program.
  - What do your children need to engage in more true play?
  - If you already see a lot of rich play, what practices are supporting that?
  - Is there play occurring in your room that you have identified as needing to be supported and enriched?
  - Does your curriculum planning system support children's independent interests and emerging play?

STEM curriculum is designed through observation, planning, team communication, and careful design.