



Back to Basics: Mathematical Play

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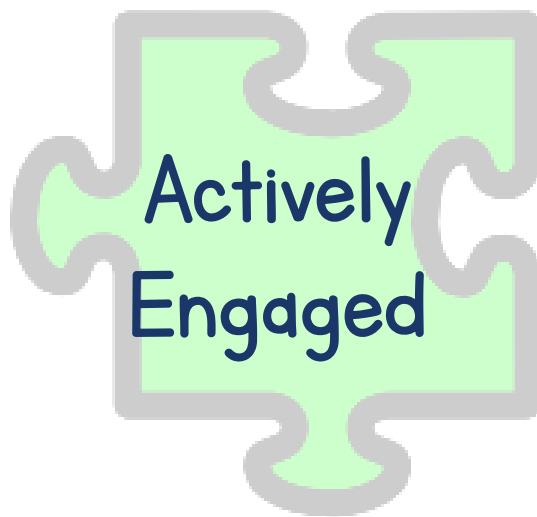
For the next 25-ish minutes, you are to interact with the materials of your choice. No rules.



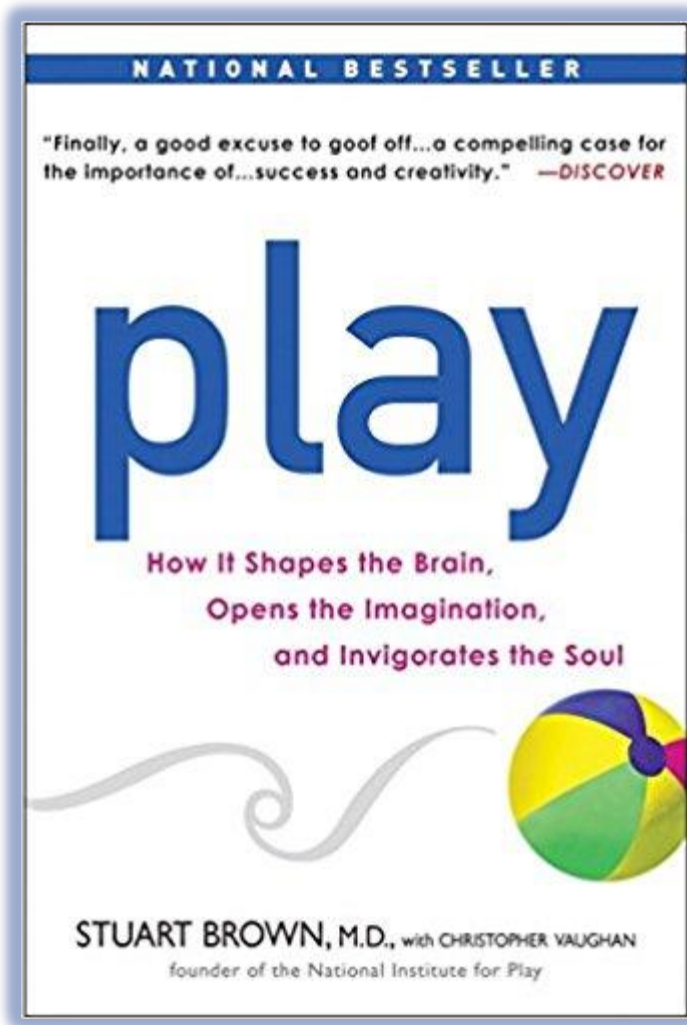
What is PLAY?

Let's hear your thoughts.

Mathematical play is...



Properties of Play



- 1.) Diminished consciousness of self
- 2.) Improvisational Potential
- 3.) Continuation desire

Types of Play

Exploratory Play



Playful Mathematics

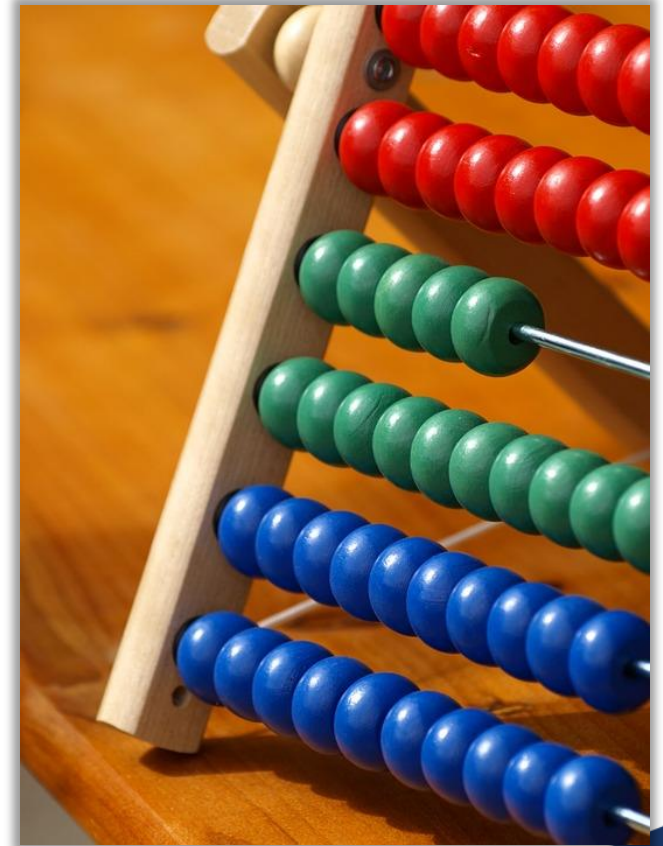


What is the value of the dollar sign?



Mathematical Play Content

- Classifying
- Exploring magnitude
- Enumerating
- Investigating dynamics
- Studying patterns and shape
- Exploring spatial relations



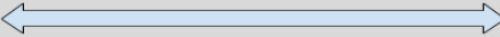
How Do You Play?



Conferring During Play

Mathematicians ask themselves questions when they work and play.

It is important to understand **how** to talk to kids during play. You want to know about what they are thinking – not imposing your thoughts on their play.

Conferring During Play The child's interests and questions drive the exploratory play time. However, the teacher's role as coach, thinking partner, and play partner is very important as well! Conferring during play is a balance of valuing the child's ideas and choices while also nudging their thinking. This language should be supportive of that responsiveness, and not box you into one type of conversation or make your interactions with children formulaic.			
 Deep Listening Is Ongoing Throughout the Conferring Process			
Researching Language	Noticing Language	Wondering, Connecting and Inviting Language	Summarizing and Paraphrasing Language
<ul style="list-style-type: none"> •Conferring begins with researching the child's thinking and using noticing language in order to better understand what the child is doing and thinking. •These interactions should focus on the teacher's genuine curiosity in the child's thinking, rather than inserting her own ideas or expressing judgement with statements such as "I like how you..." or "Why don't you try..." 		<ul style="list-style-type: none"> •Wondering language builds upon the child's current thinking and understanding to gently nudge the child towards a new/different/extended idea that she may choose to pursue. •Connecting language serves as a bridge between the play of different children or the same child's play over time. •Inviting language offers a specific idea or question for a child to take up if she chooses. 	<ul style="list-style-type: none"> •Summarizing or paraphrasing a child's ideas may help clarify a question or idea a child wants to pursue.
<ul style="list-style-type: none"> •<i>What are you thinking about right now?</i> •<i>What are you wondering about?</i> •<i>What are you making?</i> •<i>How did you make that?</i> •<i>What are you working on figuring out??"</i> •<i>Will you tell me about this?</i> •<i>Are you thinking that...?</i> 	<ul style="list-style-type: none"> •<i>Look how you ...</i> •<i>That's so interesting how you ...</i> •<i>It looks like you're trying to ...is that right?</i> •<i>I notice you decided to ...</i> 	<ul style="list-style-type: none"> •<i>I'm wondering what would happen if you ...</i> •<i>I'm wondering how you might ...</i> •<i>I'm wondering why/how you decided to ...</i> •<i>Remember yesterday when Alexis told us how she was trying to figure out how to... You might try ...</i> •<i>This reminds me of when we learning about...I wonder if you might try...today?</i> •<i>Remember last week when you thought about...while you were playing with the... You might go back to thinking about...today.</i> •<i>We wrote some questions about...on Monday. You might read them again and see if there's one you want to work on today.</i> 	<ul style="list-style-type: none"> •<i>So one thing you're really working on figuring out is...</i> •<i>So first you made...and/but then you decided to...</i>

So, what does
PLAY look like at
your grade level?

Turn and Talk.



Photo You Need A Play Table In Your Math Classroom!



The “buts”...

- *Am I allowed to play?*
- *Do I have time to play?*
- *It is OK to have my struggling students play?*
- *Do I have to choose between intervention and play?*



Resources

- *Playing with Mathematics: Play in Early Childhood as a Context for Mathematical Learning* https://www.merga.net.au/documents/MERGA33_Symposium_BobisEtAl.pdf
- *Purposeful Play: A Teacher's Guide to Igniting Deep and Joyful Learning Across the Day* <https://www.heinemann.com/products/e07788.aspx>
- *Math Play: How Young Children Approach Math* <https://www.scholastic.com/teachers/articles/teaching-content/math-play-how-young-children-approach-math/>
- *You Need A Play Table In Your Math Classroom!* <https://saravanderwerf.com/2017/05/29/you-need-a-play-table-in-your-math-classroom/>
- *Making Space for Mathematical Play* http://s3.amazonaws.com/cdn.stenhouse.com/pdfs/Kassia%20mohundro%20Wedekind_Teaching%20Tips.pdf
- *The Power of Play* www.childrensmuseums.org/images/MCMResearchSummary.pdf&usg=AOvWaw2nuAmqHjnwIp2GMVKABlqS

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