

# Purposeful Play and Executive Functions in Kindergarten

*Presented by Abby Pinney and Kelly Enoch*



# Core Executive Functions

- **Inhibitory control of actions and attention**
  - self-control or discipline – physical, emotional (response inhibition)
  - selective or sustained attention (despite frustration or boredom)
- **Working memory**
  - holding information in mind & working with it
- **Cognitive flexibility**
  - thinking “outside the box”
  - adapt to different rules
  - problem-solving
  - Creativity



<https://developingchild.harvard.edu/guide/a-guide-to-executive-function/>

# Specialized cognitive skills work together to regulate, recall and plan a person's actions helping a child to :

- Remember and follow multiple-step directions
- Avoid distractions and impulsive responses
- Adjust when rules and instructions change
- Keep trying after an initial failure
- Persevere and try different solutions
- Organize and manage projects and long-term assignments



# Sustaining attention and engagement

- Choice - agency
- Novelty (pattern change) correlates with attention
- Curiosity
- Prediction
- Personal relevance
- Appropriate risk or challenge
- Instruction planned with inquiry and discovery can stand alone to captivate and sustain attention
- **Dopamine (enjoyment with risk-taking) release sustains interest and perseverance**

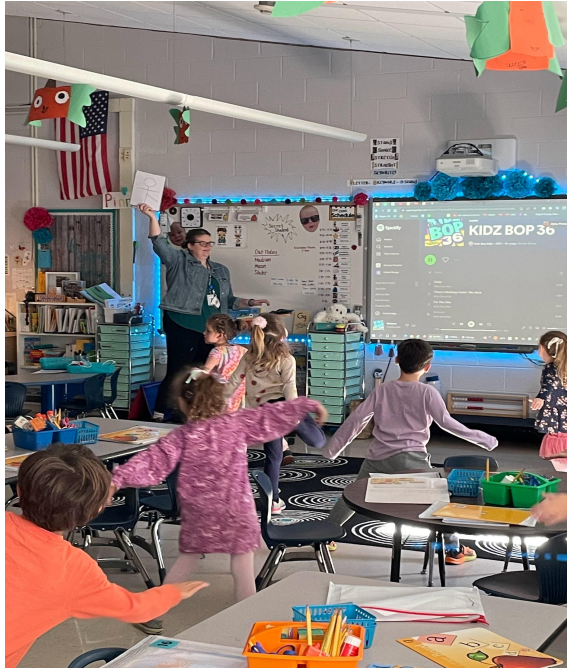
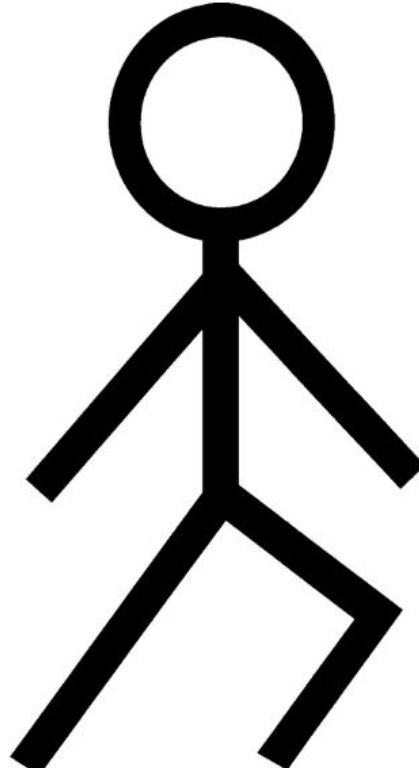




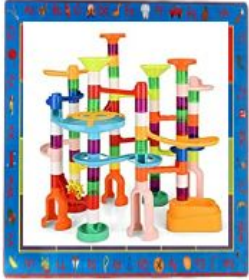
# Project Strategies

- ***Freeze Game***
- Graphic Practice
- Relay Game
- ***I have, Who has***
- Buddy Reading
- Question of the day
- Daily schedule
- Linear calendar
- ***Who Goes First***
- Activity management
- Message of the day
- ***Play plans***

# Freeze Dance Game!



# Who Chooses First!



Marble Run



Kinex



Building Bars



Puppet Theater

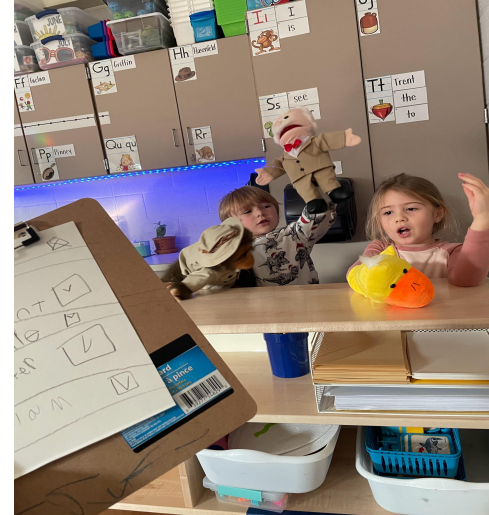
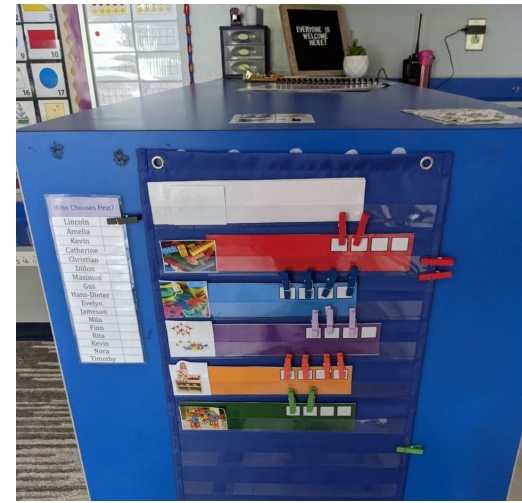


Oil Pastels

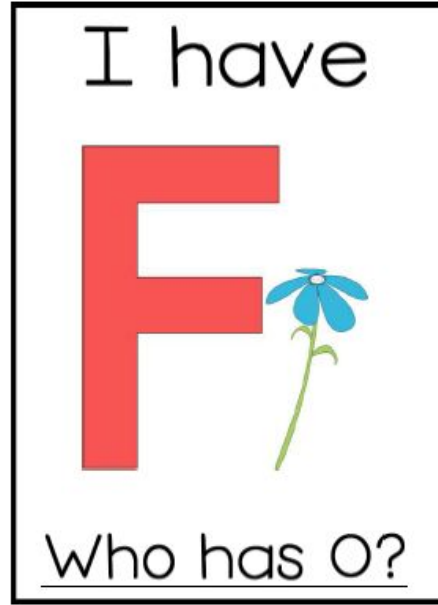
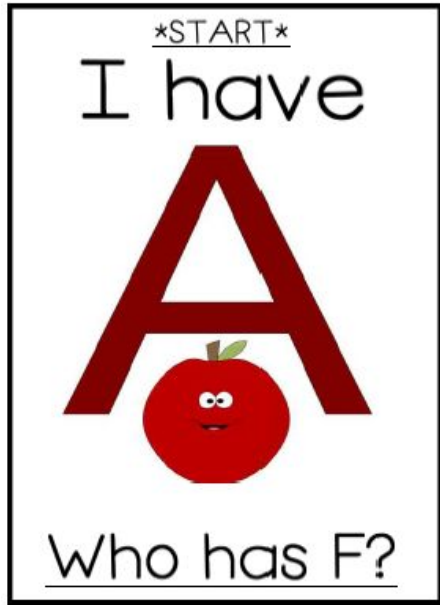


## Who Goes First?

Trent  
Katarina  
Owen  
Emilia  
**Liam**  
Miller  
CJ  
Slater  
Faelan  
Nora  
Ben  
Mila  
Macon  
Liv  
Griffin  
Madison  
Ava

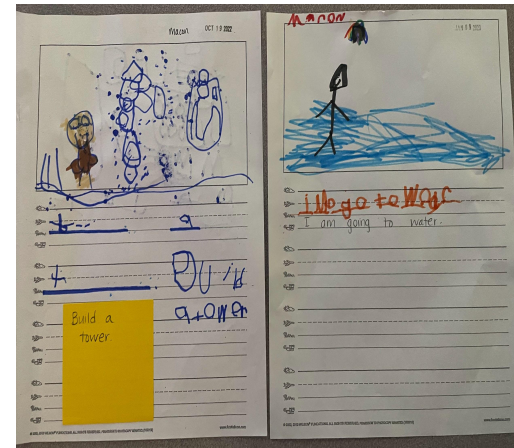
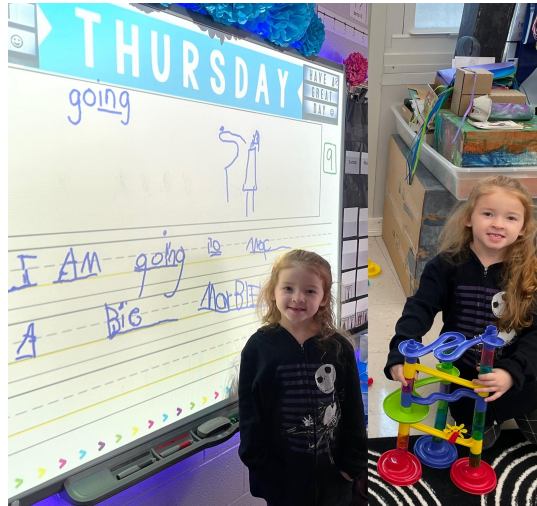
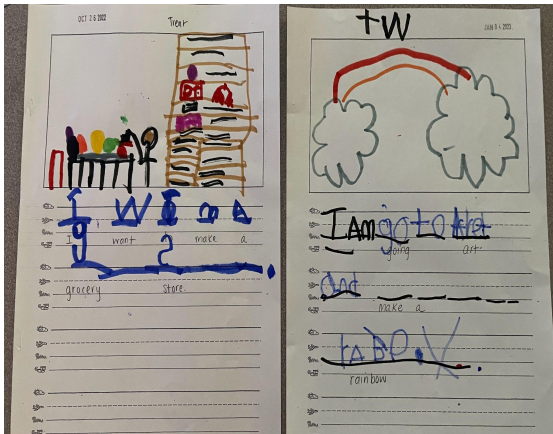
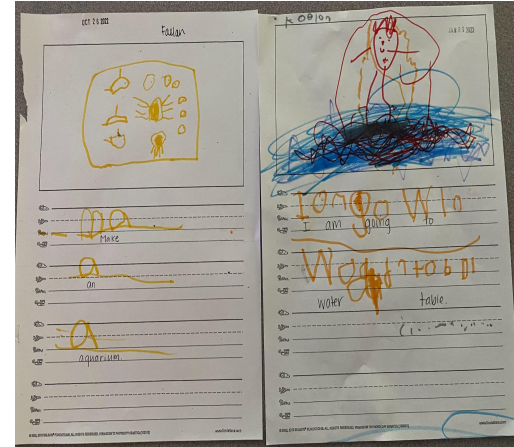
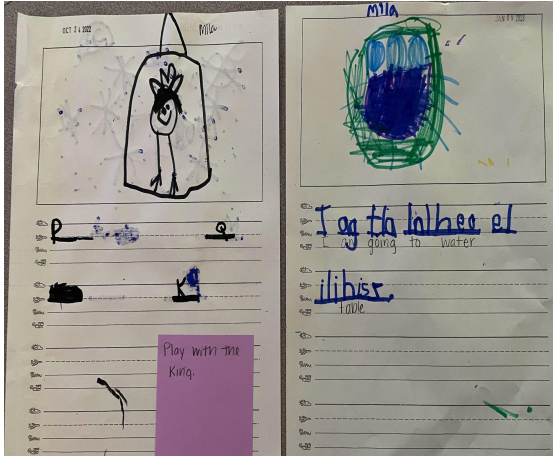


# I Have, Who Has!



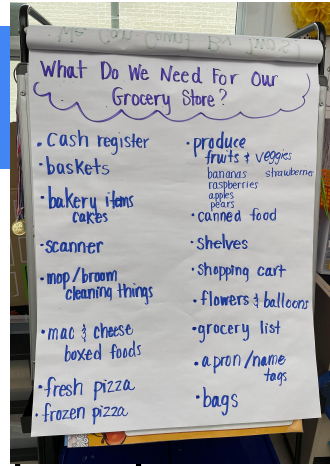
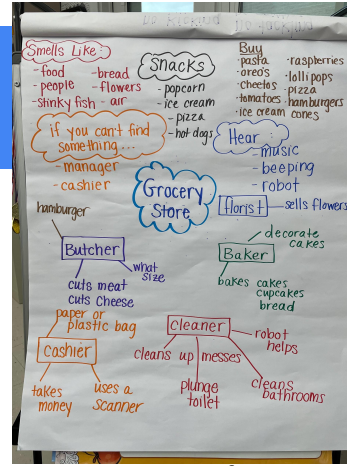


# Play Plans! Sept-Jan



# Learning Scenario

- Starts with a big idea
- Tied to standards and curriculum
- Draws from what children know and what questions that they have
- Builds background knowledge and context
- Builds social interaction and cooperative work





# Purposeful play: Provocation, challenge, problem to solve



- Helps to give children ideas
- Guides discovery
- Sustains attention to task
- Allows for different approaches and solutions
- Addresses standards





**“SCIENTISTS HAVE RECENTLY  
DETERMINED THAT IT TAKES  
APPROXIMATELY 400  
REPETITIONS TO CREATE A NEW  
SYNAPSE IN THE BRAIN –  
UNLESS IT IS DONE WITH PLAY,  
IN WHICH CASE, IT TAKES BETWEEN  
10 AND 20 REPETITIONS!”**

---

- DR. KARYN PURVIS



