

Core Skills Analysis

Mathematics

- Mia demonstrated spatial awareness while playing Staxis, as she needed to visualize where to place sticks without causing the structure to collapse.
- The game encouraged Mia to practice counting and basic numeracy as she would need to keep track of how many sticks she had placed successfully.
- Mia exercised problem-solving skills by figuring out how to secure her sticks on the unstable structure without it toppling over.
- Through trial and error during gameplay, Mia learned about balance and symmetry, which are foundational concepts in geometry.

Physical Education

- Riding a backhoe allowed Mia to experience the coordination between her movements and the machinery, enhancing her fine motor skills.
- The activity engaged her gross motor skills as she needed to maintain balance and stability while navigating.
- Taking part in the backhoe ride promoted understanding of vehicle control, including how to respond to changes in movement.
- The combination of riding the backhoe and playing Staxis encouraged physical engagement and active play, which is essential for her physical development.

Science

- Riding the backhoe introduced Mia to basic mechanics, such as understanding how machines function and the principles of movement.
- Through balancing her sticks on the Staxis structure, Mia explored concepts of gravity and force as she learned what kept the sticks in place.
- Observing the consequences of her actions in Staxis taught Mia about cause and effect, an essential scientific principle.
- Both activities fostered curiosity about the world around her, encouraging questions about how machines work and what holds structures stable.

Social Skills

- Playing the board game Staxis with her mom encouraged turn-taking, cooperation, and patience.
- Mia had the opportunity to engage in verbal communication when discussing strategies or rules of the game with her mother.
- The shared experience of riding the backhoe and playing a game strengthened the bond between Mia and her mom, highlighting the importance of social interactions.
- Resolving any conflicts during gameplay allowed Mia to practice negotiation and emotional regulation.

Tips

To further enhance Mia's learning, it would be beneficial for her to explore more games that involve strategic thinking and balance, such as Jenga or building with blocks, which can cultivate her understanding of architecture and stability. Incorporating storytime that features construction or vehicles can also consolidate the concepts learned during her time on the backhoe. Moreover, more hands-on activities like simple engineering with everyday materials (boxes, plastic cups) can boost her

understanding of physics principles. Parents and teachers could also consider field trips to construction sites or science centers to give her more context about the machines she experiences.

Book Recommendations

- [Good Night, Good Night, Construction Site](#) by Sherri Duskey Rinker: This charming bedtime story brings to life the world of construction vehicles, captivating young readers with rhythmic text and illustrative images.
- [The Little Engine That Could](#) by Watty Piper: A classic tale of perseverance and determination, showcasing themes of hard work and the importance of believing in oneself.
- [Build, Dogs, Build: A Tall Tail](#) by James Horvath: A fun and engaging story about dogs who build and construct, encouraging children to appreciate teamwork and construction!

Learning Standards

- CCSS.MATH.CONTENT.K.G.A.2: Correctly name shapes regardless of their orientations or overall size.
- CCSS.MATH.CONTENT.K.G.B.5: Analyze and compare two- and three-dimensional shapes, in terms of their similarities, differences, and other attributes.
- Next Generation Science Standards: K-PS2-1: Plan and conduct an investigation to test the effects of different strengths or directions of pushes and pulls on the motion of an object.
- CCSS.ELA-LITERACY.SL.K.1: Participate in collaborative conversations with diverse partners about kindergarten topics and texts.