

Core Skills Analysis

STEM (Science, Technology, Engineering, and Mathematics)

- The student learned about balance and stability by understanding how the bridge structure needs to be sturdy enough to support the weight of the vehicles.
- Introduction to basic engineering concepts as the student had to construct a bridge using limited resources like paddle pop sticks and masking tape.
- Understanding cause and effect as the student discovered that the bridge needed to be properly designed in order for the vehicles to cross without collapsing.
- Developed problem-solving skills by trying different designs and techniques to create a functional bridge.

Fine Motor Skills

- Enhanced hand-eye coordination by placing the paddle pop sticks in specific positions to build the bridge.
- Improved finger dexterity while handling and attaching the masking tape to secure the sticks together.
- Strengthened grip strength through manipulating the paddle pop sticks and tape to construct the bridge.
- Refined pincer grasp as the student picked up small items like the paddle pop sticks and carefully placed them in position.

Creative Thinking

- Encouraged imagination and innovation in designing a unique bridge structure using unconventional materials.
- Promoted open-ended play by allowing the student to experiment with different layouts and shapes for the bridge.
- Inspired problem-solving by presenting the challenge of connecting two chairs with a bridge that could support vehicles.
- Fostered curiosity as the student explored various ways to create a functional bridge within the given parameters.

Tips

For further development after the activity, consider introducing different types of vehicles with varying weights to test the durability of the bridge. You can also incorporate color coding for the paddle pop sticks to create patterns or use different types of tape for added texture. Encourage the child to create a story or scenario where the vehicles need to cross the bridge for a fun narrative element.

Book Recommendations

- [Bridges Are to Cross](#) by Philemon Sturges: A delightful book that introduces young children to bridges and their importance in connecting different places.
- [Iggy Peck, Architect](#) by Andrea Beaty: Follow Iggy Peck, a young architect, as he uses his creativity and love for building to solve problems and create wonders.
- [Rosie Revere, Engineer](#) by Andrea Beaty: Join Rosie Revere as she embarks on a journey to pursue her engineering dreams, inspiring young readers to embrace their passions.